Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
IP-Enabled Services	)	WC Docket No. 04-36
	)	

COMMENTS OF SBC COMMUNICATIONS INC.

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May 28, 2004

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SBC Communications Inc. and its affiliated companies (collectively, "SBC") respectfully submit these comments on the Commission's Notice of Proposed Rulemaking ("*NPRM*") regarding IP-enabled services.[1/]

INTRODUCTION AND SUMMARY

The Internet has thrived to date under the Commission's well-established policy of regulatory restraint. In the Telecommunications Act of 1996, Congress formalized that policy by declaring that "[i]t is the policy of the United States" to "preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[2/] That policy of unregulation has unquestionably fostered the explosive development of the IP-enabled services that are the subject of this rulemaking. The market for such services is intensively competitive and characterized by extremely low barriers to entry. A wide variety of IP-enabled service providers — including facilities-based and non-facilities-based service providers, equipment manufacturers, backbone

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1/ Notice of Proposed Rulemaking, *IP-Enabled Services*, WC Docket No. 04-36 (rel. Mar. 10, 2004) ("*NPRM*").

2/ 47 U.S.C. § 230(b)(2).

providers, application providers, and others — compete to offer subscribers the newest innovations for the delivery of enhanced voice, data, and video services.[3/]

In considering how to classify IP-enabled services and whether and how to regulate them, the Commission must be mindful that the success of this industry to date has been enabled by the Commission's long-standing "unregulatory" approach. Further, the Commission should remember that it is addressing a robust, functioning market — not one in need of being "fixed" by the government. Reflexively regulating this next generation of technology and services, which is poised to revolutionize the nation's communications marketplace, is not remotely necessary. Indeed, such regulation would affirmatively impede innovation, competition, and economic growth. Thus, as the Commission itself has recognized, it should "rely[] wherever possible on competition and apply[] discrete regulatory requirements only where such requirements are necessary to fulfill important policy objectives."[4/] As SBC has explained in its pending petitions,[5/] and as it discusses further in these comments, the Commission can achieve that result by exercising its jurisdiction to classify IP-enabled services as interstate information services and preempting all common carrier and similar state regulation of such services. After making this foundational determination, the Commission can exercise its Title II non-carrier-

3/ *See generally* Competition in the Provision of Voice Over IP and Other IP-Enabled Services, *IP-Enabled Services*, WC Docket No. 04-36, at 2-11 (filed May 28, 2004) ("VoIP Fact Report").

4/ *NPRM* ¶ 5; *see also infra* Background.

5/ *See* Petition of SBC Communications Inc. for a Declaratory Ruling Regarding IP Platform Services, WC Docket No. 04-36 (filed Feb. 5, 2004) ("SBC Declaratory Ruling Petition"); Petition of SBC Communications Inc. for Forbearance from the Application of Title II Common Carrier Regulation to IP Platform Services, WC Docket No. 04-29 (filed Feb. 5, 2004) ("SBC Forbearance Petition").

specific jurisdiction and its Title I ancillary jurisdiction to design narrowly tailored rules addressing specific public policy concerns implicated by these services.[6/]

For the reasons set forth in SBC's pending petitions concerning IP platform services, while such an approach is demanded as a matter of public interest, it also is required as a matter of law. From a jurisdictional perspective, IP-enabled services almost always use, include, or provide access to the Internet — and more specifically, the globally dispersed networks and facilities that compose the Internet. They therefore are categorically interstate communications and fall squarely within the Commission's express Title I jurisdiction over such communications. Moreover, separating out an intrastate component of IP-enabled services would be commercially infeasible. Within the course of a single communication, packets travel with geographic unpredictability. And, because of the inherent portability of such services, only the end user may know whether a transmission is intrastate or interstate. Consistent with the Commission's

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6/ As discussed below in section IV, the Commission has jurisdiction to regulate the activities of communications providers under Title II and the other substantive titles of the Act. While much of Title II gives the Commission authority to regulate the economic behavior of "common carriers" as such (*e.g.*, the rates, terms, and conditions for the telecommunications services they provide), some overarching provisions of Title II grant the Commission jurisdiction to regulate services or functions regardless of whether the provider is a common carrier. For example, section 254(d) gives the Commission permissive authority to require universal service contributions from providers of interstate telecommunications. 47 U.S.C. § 254(d). Similarly, section 251(e) gives the Commission exclusive jurisdiction over the North American Numbering Plan. *Id.* § 251(e). SBC uses the term "Title II non-carrier-specific jurisdiction" to refer generally to these and other provisions of the Act that authorize the Commission to regulate *non-common carrier* services and activities. In addition, as discussed below in Section IV, the Commission has jurisdiction under Title I of the Act to regulate "communication by wire or radio," so long as the exercise of that jurisdiction is "reasonably ancillary to the effective performance of the Commission's various responsibilities." *United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968). Accordingly, SBC refers to this grant of authority as the Commission's "ancillary jurisdiction."

historic practice, which it recently reaffirmed,[7] these circumstances permit the Commission to assert exclusive jurisdiction over IP-enabled services.

Just as the Commission's jurisdiction follows from the nature of IP-enabled services, so too does the proper regulatory treatment of such services. As explained in SBC's pending petitions, IP-enabled services — when properly defined to exclude services that merely use the IP backbone for transport — intrinsically offer subscribers the enhanced functionality available using the Internet, including the capability for manipulating and storing information. They accordingly are correctly viewed as "information services," which the Commission has recognized are properly regulated under Title I. This determination will free IP-enabled services from legacy common carrier regulation and will thus promote Congress's vision of a "vibrant and competitive free market" for "the Internet and other interactive computer services."[8] A finding that IP-enabled services are interstate information services will also resolve emerging uncertainty concerning the regulatory classification of IP-enabled services and provide the predicate for the Commission's consideration of several of the public policy issues addressed below. In those limited instances where the current version of a particular IP-enabled service might not fall squarely into the information service category, the Commission should forbear from Title II common carrier regulation in order to promote the technological innovation and competition that has helped the market for these services thrive and has brought social and economic benefits to American consumers and businesses.

7/ *See* Memorandum Opinion and Order, *Petition for Declaratory Ruling that pulver.com's Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, 19 FCC Rcd 3307, 3320-21 ¶ 20 (2004) ("*Pulver Declaratory Ruling*").

8/ 47 U.S.C. § 230(b)(2).

It is not enough, however, for the Commission merely to clarify that *it* will not subject IP-enabled services to legacy common carrier regulations designed in a different world for fundamentally different services. To ensure that government regulation does not distort or chill innovation and competition for IP-enabled services, the Commission should make clear that state-level common carrier regulation and certain other regulations would impose undue costs on providers of IP-enabled services and are thus inconsistent with Congress's free-market vision. The Commission is plainly authorized to preempt such regulations, and there is no room here for dual federal-state jurisdiction. Congress specifically charged the Commission with promoting a market for Internet-based services that is "unfettered by Federal or *State* regulation."[9] And for good reason: Congress understood that regulatory uncertainty is inimical to innovation and investment and that this concern would be greatly magnified if the Internet industry were exposed to regulation by 51 state public service commissions rather than a unitary federal policymaker. The Commission would undermine this unregulatory legacy if it now permitted the states to impose common carrier-type obligations or other requirements on IP-enabled service providers that would negate the federal policy of unregulation. As more and more states have begun to initiate proceedings to determine how to *regulate* VoIP and other IP-enabled services, it becomes increasingly critical for the Commission to take swift and clear action by assuming exclusive jurisdiction in this arena and expressly confirming its authority to preempt state common carrier regulation in particular and inconsistent state regulation in general.

In finding that IP-enabled services are Title I interstate information services that are presumptively exempt from Title II legacy common carrier regulation, the Commission would not relinquish authority to address various policy concerns relating to those services; in fact, a

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9/ *Id.* (emphasis added).

determination that IP-enabled services are interstate information services is an essential predicate to the Commission's resolution of some of these issues. The Commission could address each of these concerns through its Title II non-carrier-specific jurisdiction, its Title I ancillary jurisdiction, and, in situations where IP-enabled services interact with the legacy circuit-switched telephone network (generally known as the public switched telephone network, or "PSTN"), its Title II jurisdiction over common carrier services. For example, the Commission can (and should) invoke its authority under Title II over access to the PSTN to establish appropriate intercarrier compensation rules when VoIP providers allow their subscribers to send and receive traffic to and from the PSTN. In addition, the Commission can rely on its Title II non-carrier-specific authority to address such issues as numbering, universal service, 911, and access for disabled persons.[10/] And to the extent the Commission lacks authority under Title II to address any critical issues, it can rely on its ancillary authority under Title I.[11/] Finally, declaring IP-enabled services to be (largely) unregulated information services under Title I would still leave undisturbed the Commission's Title II authority over legacy non-IP facilities and services used for PSTN-based telecommunications. The Commission not only can, but should, invoke these sources of authority to provide prompt solutions for the most urgent issues. In other cases, it would be sufficient for the Commission to declare its jurisdiction to oversee and monitor the IP-

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10/ *See, e.g.*, *id.* §§ 251(e)(1), 254(d), 251(e)(3), 255. Another fundamental issue raised by the advent of IP-enabled services is communications assistance for law enforcement. The Commission has wisely chosen to deal with that important issue in a separate proceeding devoted to addressing the unique needs of law enforcement, and SBC looks forward to participating in that proceeding. *See* U.S. Department of Justice, Federal Bureau of Investigation, and Drug Enforcement Administration, Joint Petition for Rulemaking to Resolve Various Outstanding Issues Concerning the Implementation of the Communications Assistance for Law Enforcement Act, Docket No. RM-10865 (filed Mar. 10, 2004); *see also NPRM* ¶ 50 n.158.

11/ 47 U.S.C. §§ 151, 152(a), 154(i).

enabled services market to determine whether a need for regulation exists, and to design regulatory solutions only when necessary.

While many of the issues that the Commission has raised in the *NPRM* are important, two key issues — in addition to the threshold issue of the proper regulatory classification of IP-enabled services as interstate information services — require immediate attention above all others: intercarrier compensation and access to numbering resources. First, the Commission should promptly resolve the current uncertainty regarding the intercarrier compensation obligations of IP-enabled service providers. In the long run, SBC expects that such uncertainty will be overtaken by creation of a unified intercarrier compensation regime. In the shorter term, however, the Commission should address the most pressing intercarrier compensation concern, which is access charge arbitrage. Access charges continue to play an important role in keeping telephone service affordable for tens of millions of residential and business customers. The Commission should clearly reaffirm that, under its *current* rules, IP-enabled service providers are not exempt from the obligation to pay access charges when they make use of the PSTN for purposes other than connecting with their *own* subscribers for the use of their own services. The Commission should also conclude that, going forward (and subject to the qualifications described herein), the applicable charges are interstate access rates, rather than intrastate access charges (or reciprocal compensation). Such a determination comports with the uniformly interstate nature of IP-enabled services, and also provides a stable and workable means of clarifying providers' obligations in this area pending the adoption of a unified scheme for intercarrier compensation generally.

The Commission should also immediately correct the distortion in its existing numbering rules that limits VoIP providers to certain network architectures in order to obtain numbering resources from the North American Numbering Plan Administrator ("NANPA") or the Pooling Administrator ("PA"). The current numbering rules have the practical effect of forcing VoIP providers to obtain numbers from ILECs or CLECs, thereby discouraging providers from directly interconnecting with tandem switches on par with other providers that have direct access to numbering resources. These rules are unnecessarily restrictive and inhibit the growth of VoIP services. VoIP providers that can satisfy basic criteria to demonstrate that they will use, rather than horde, numbers should be entitled to direct access to NANP numbers, without the need to go through a LEC intermediary. And, while the Commission should monitor and address any numbering exhaust concerns presented by VoIP, such concerns would not be exacerbated by the type of direct access proposed by SBC, as discussed below in section VI.B.

Prompt resolution of these two issues, in addition to confirming the proper classification of IP-enabled services as interstate information services, is critical. Until these issues are satisfactorily resolved, investment and innovation in the market for IP-enabled services will be severely impeded. Thus, rather than attempting to address every issue raised in the *NPRM* simultaneously in a single omnibus order, SBC strongly encourages the Commission to act on at least these three issues as expeditiously as possible, but by no later than the end of the year.

Of course, the paramount importance of these issues in no way diminishes the critical need for the Commission to address the remaining public policy issues described below. For example, the Commission should assert jurisdiction to ensure that voice-capable IP-enabled services that interconnect with the PSTN can provide 911 access to emergency services. The industry is already voluntarily expending significant effort to develop the means for implementing 911 capability in an IP environment. Thus, the Commission should work closely with the industry to establish workable standards that can be implemented to ensure that customers who use VoIP services, for example, will have similar 911 capabilities as end users on the PSTN. But the Commission should not adopt restrictive regulations because, in the long run, if the industry is afforded a flexible regulatory environment, the 911 capabilities of IP-enabled technology are likely to exceed current 911 capabilities.

The Commission should also reaffirm its commitment to the needs of people with disabilities by asserting its ancillary authority to ensure that IP-enabled services that interconnect with the PSTN provide the same types of access that Congress has required for telecommunications services and some information services, telecommunications equipment, and customer premises equipment. The IP revolution is a critical event in the development of the communications marketplace, and it would be wrong to deprive people with disabilities of the ability to realize the phenomenal potential of this transformative new medium. The Commission should continue its current course of extending, where appropriate, telecommunications relay services ("TRS") funding for IP-enabled services that facilitate communications access for persons with disabilities. The Commission should also require IP-enabled service providers that interconnect with the PSTN to contribute to the federal TRS funding mechanism.

In addition, the Commission should reform its universal service policies to accommodate the explosive growth of IP-enabled services. The Commission has recognized that those who use and benefit from the PSTN, like IP-enabled service providers who interconnect with that network, should contribute to its support. In addition, as traffic migrates to IP-enabled services, the traditional telecommunications revenue base for universal service contributions will decrease and the contribution burden on legacy service providers will increase. The Commission should affirm its ability to broaden the contribution base to include IP-enabled service providers, and revisit this issue as necessary to ensure adequate and equitable universal service funding. The

Commission should also affirm its ability to authorize the use of universal service funding to support certain IP-enabled services where appropriate, at some later date in the future (though it should not act on that authority at present).

Finally, although the Commission has *authority* to employ its Title I ancillary jurisdiction to adopt consumer protection rules for all interstate communications services,[12] exercising it with respect to IP-enabled services would be redundant in light of existing protections. To the extent consumer protection issues arise in the market for IP-enabled services, they can be effectively dealt with through the normal application of non-communications-specific consumer protection laws, such as those addressing fraud. In addition, the thriving competition that already prevails in the IP marketplace, rather than regulation, is the best form of consumer protection. Thus, the Commission need not create special consumer regulations for IP-enabled services or import the consumer protection regulations that Congress tailored for customers of legacy services on the PSTN, such as the section 222 customer proprietary network information ("CPNI") rules, which have never been deemed necessary for IP-enabled services. Finally, although the Commission should not impose the full suite of section 214 entry and exit rules on IP-enabled service providers, the Commission may want to consider requiring IP-enabled service providers to give at least some limited advance notice before they discontinue service to their customers.

In sum, by declaring that IP-enabled services are not subject to Title II common carrier regulation, the Commission can protect important policy goals, preclude the encroachment of

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12/ *See, e.g.*, Order on Reconsideration, *Promotion of Competitive Networks in Local Telecommunications Markets*, 32 Communications Reg. (P&F) 118 ¶¶ 7-8 (2004); Order, *2000 Biennial Review — Review of Policies and Rules Concerning Unauthorized Changes of Consumers' Long Distance Carriers*, CC Docket No. 00-257 ¶ 9 (rel. May 4, 2004).

common carrier regulation into the IP sphere, maintain the nonregulated status quo for IP-enabled services, and accommodate with regulatory certainty the evolution of IP network technology, services, and applications.

BACKGROUND

In this proceeding, the Commission has undertaken the task of analyzing and categorizing IP-enabled services to determine their appropriate regulatory treatment. This requires the Commission to consider not only the technology underlying these services, but also how that technology has shaped the market for IP-enabled services. As explained below, the unique characteristics of IP technology have yielded a wide array of services and facilities that differ dramatically from those associated with the traditional circuit-switched network, a consequence that has direct bearing on how IP-enabled services should be regulated. While such services come in many shapes and forms, one fundamental point unites all of them: IP-enabled services exist in a highly competitive environment that promotes investment and innovation and protects the interests of consumers without any need for governmental intervention, except in very limited circumstances.[13/] Indeed, the Commission recognized long ago that regulation could only harm these types of services as they began to emerge, and thus set an unregulatory course that made the IP revolution possible. As the Commission notes in the *NPRM*, IP-enabled services "have arisen in an environment largely free of government regulation, and the great majority, we expect, should remain unregulated."[14/] Congress shared this goal, and accordingly provided the Commission with the requisite authority to ensure the continuing success of IP-enabled services.

13/ The state of competition in the provision of IP-enabled services is described in detail in the VoIP Fact Report filed with the Commission on May 28, 2004.

14/ *NPRM* ¶ 35.

As the Commission recognizes at the outset of the *NPRM*, the technology underlying IP-enabled services is fundamentally different from that on which the traditional circuit-switched network is based.[15/] The latter was originally designed for a single application: voice telephony. In fact, the very nature of circuit switching substantially limits its ability to support other types of services. Because a circuit-switched network dedicates a fixed amount of capacity (the circuit) for the duration of the communication regardless of whether information is being transmitted, it is normally an inefficient medium for the transmission of bursty data traffic. Moreover, the bandwidth of a circuit-switched transmission is typically quite narrow, which precludes its use for large quantities of information that must be sent simultaneously and continuously in real-time, such as video.

IP-based networks are free of these technical limitations, and in fact are capable of supporting a constantly expanding range of service possibilities.[16/] The networks over which IP-enabled services are provided are specifically designed to handle huge quantities of information at high speeds and to transmit myriad communications of all types. The IP platform (in short, IP-based networks and their associated capabilities and functionalities) utilizes packet switching, in which all information — including voice, data, and video — is broken down into individual packets, each representing a portion of the message sent. Each packet is labeled with information that helps it arrive at its final destination — such as its originating and terminating endpoints and the number of packets that constitute the particular message. The packets then travel over different routes to their ultimate destination, where they are reassembled. The

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15/ *See, e.g.*, *id.* ¶ 4.

16/ *See* VoIP Fact Report at 23-24 ("The IP platform is widely viewed as much more flexible than the circuit-switched platform, because it enables new features to be developed and deployed much more quickly and efficiently.").

emergence of the Internet Protocol — a common, open code that serves as the universal language of the Internet — has maximized these benefits of packetization by allowing communications to travel seamlessly across national and, more importantly, technological borders. The result is a platform that can support a far wider and more diverse range of services than is available over the circuit-switched network[17/]:

- *First*, the universality of IP permits unprecedented interconnectivity among otherwise dispersed networks.

- *Second*, IP permits convergence of services that have traditionally been carried on different networks. Voice, data, and video can be unified by the language of IP, enabling them to be consolidated on a single network and transmitted simultaneously, with the packets commingled until they arrive at their respective destinations. Multiple applications can thus be offered concurrently and on a tightly integrated basis.

- *Third*, packetization, together with the continually improving labeling functions of packet networks, permits calls to be transported more efficiently. The network can distribute the individual packets making up a particular message across different paths, and can route them dynamically in ways that avoid problems in the network.

- *Finally*, the flexibility inherent in the IP platform gives end users unprecedented control over the services they receive. Customers can interact with stored data on a provider's network to customize their services to accommodate business, network, personal abilities, or other needs, integrating multiple applications as desired and according to their specific bandwidth and capacity requirements, in ways that are simply not possible over the circuit-switched network.[18/]

The technology underlying the IP platform also has created market-based incentives to invest in and exploit these service possibilities. The IP platform is an overlay network, consisting of its own routers and IP-enabled facilities, that is separate and discrete from the

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17/ *See id.* at 18 & tbl.5 ("[A]s industry analysts, competitive carriers, and equipment vendors now uniformly agree, VoIP provides comparable or superior quality and functionality to conventional circuit-switched service."); *see also id.* at 34 tbl.6 (comparing features of VoIP and PSTN-based services).

18/ *See id.* at 24 ("Analysts expect an even wider array of features to be introduced in the future, as VoIP services become more integrated with data and video.").

circuit-switched network and traditional Asynchronous Transfer Mode ("ATM") and frame relay networks. In contrast to the circuit-switched network, the Internet is highly "modular," in that particular providers can and do specialize in supplying services for different market segments, enabling *any* entity — including carriers, equipment manufacturers, software companies, and other "non-carriers" — to provide IP-enabled services, often over the networks of others.

As a result of this open architecture and independence from traditional legacy networks, the market for IP-enabled services is characterized by low barriers to entry and an absence of market power. For example, any entity that seeks to offer an IP-enabled service — such as VoIP — need only invest in relatively inexpensive call-management network equipment and certain customer premises equipment ("CPE"), which allow it to reach the continually growing number of consumers with a preexisting broadband connection.[19/] As a result, diverse entities such as cable operators, traditional CLECs, interexchange carriers, and a new breed of IP-based providers — some of which own only the most minimal facilities — are now deploying IP-enabled services throughout the country.[20/] Cable operators in particular have been aggressive in developing and deploying VoIP services.[21/] For example, Comcast Corporation recently

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19/ *Id.* at 11-13 ("The principal incremental equipment-related capital cost of adding VoIP service for a customer who already has a broadband connection is for relatively inexpensive CPE and call-management network equipment.").

20/ *See generally id.* at 2-11 & tbl.1 (describing the types of providers that currently or plan to offer VoIP services); *see id.* at 25 ("A number of other IP-enabled services promise to exert competitive pressure on traditional networks and services. New video-over-IP services could provide much-needed competition to cable companies. IP-based services are also being successfully marketed to enterprise customers as substitutes for earlier generations of packet-switched services.").

21/ *Id.* at 5 ("Since the beginning of 2004, each of the six major cable operators — whose networks reach 85 percent of U.S. households and serve 90 percent of all cable modem subscribers — has either begun commercial deployment of IP telephony service, or has announced plans to do so imminently. Many smaller cable operators have done so as well.")

announced plans for a national rollout of VoIP that will enable it to provide phone service to all 40 million of its cable customers by the end of 2006.[22] These new services frequently cost less and provide greater functionality than traditional circuit-switched services.[23]

The success of IP-enabled services is no accident. Rather, it is the ultimate validation of the Commission's decision over twenty years ago to refrain from subjecting "enhanced services" to common carrier regulation under Title II. The Commission then recognized that introducing regulation into an emerging yet competitive market was unnecessary and, in fact, affirmatively harmful. As the Commission then explained, "[T]he absence of traditional public utility regulation of enhanced services offers the greatest potential for efficient utilization and full exploitation of the interstate telecommunications network."[24] The Commission subsequently maintained this policy of regulatory restraint, noting that "[r]egulation often can distort the workings of the market by imposing costs on market participants which they otherwise would

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(citations omitted); *id.* at tbl.1 (listing the cable operators that do or plan to offer VoIP and the status of that deployment).

[22] Peter Grant, "Comcast Pushes Into Phone Service," Wall St. J., at A3 (May 26, 2004); *see also* VoIP Fact Report at 6 (describing the plans of Comcast and other cable operators to offer VoIP services).

[23] *See* VoIP Fact Report at 14 (noting that "VoIP providers are now offering service at considerable discounts from circuit-switched service"); *see generally id.* at 11-20 (detailing the prices and service options available over various VoIP offerings as compared to those available over the PSTN).

[24] Final Decision, *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, 77 F.C.C.2d 384, 387 ¶ 7 (1980) ("*Computer II*"); *see also id.* at 431-32 ¶ 123 (stating that subjecting enhanced services "to a common carrier scheme of regulation . . . would negate the dynamics of . . . this area").

not have to bear. . . . [T]he advent and growth of competition in a particular market eliminates the need for continued regulation."[25]

Since that time, the Commission has repeatedly noted that it can "encourage investment and innovation by reducing regulatory obligations."[26] In fact, the Commission has recognized that competition is generally superior to regulation as a means of promoting innovation and investment while protecting consumers:

> Competitive markets are superior mechanisms for protecting consumers by ensuring that goods and services are provided to consumers in the most efficient manner possible and at prices that reflect the cost of production. Accordingly, where competition develops, it should be relied upon as much as possible to protect consumers and the public interest. In addition, using a market-based approach should minimize the potential that regulation will create and maintain distortions in the investment decisions of competitors as they enter local telecommunications markets.[27]

Government intervention is particularly undesirable with respect to the market for IP-enabled services, which is not only highly competitive but extremely dynamic. The Commission recognized the inappropriateness of regulating this highly dynamic market when it refrained from regulating the Internet backbone. As the Commission observed, "The technology and market conditions relating to the Internet backbone are unusually fluid and fast-moving, and we are reluctant to impose any regulatory mandate that relies on the persistence of a particular

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25/ Report and Order, *Procedures for Implementing the Detariffing of Customer Premises Equipment and Enhanced Services (Second Computer Inquiry)*, 95 F.C.C.2d 1276, 1301 ¶ 38 (1983).

26/ Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd 16978, 16999-17000 ¶ 22 (2003) ("*Triennial Review Order*"), *vacated in part, United States Telecom Ass'n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) (quoting Third Report and Order and Fourth Further Notice of Proposed Rulemaking, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 15 FCC Rcd 3696, 3705 (1999)).

27/ First Report and Order, *Access Charge Reform*, 12 FCC Rcd 15982, 16094-95 ¶ 263 (1997) ("*1997 Access Charge Reform Order*").

market model or market structure in this area."[28] Regulation is incapable of keeping up with the rapid pace of transformative change that the Internet has brought to electronic communications generally.

In short, any attempt to impose regulation in this area would inevitably lag behind the newest developments and technological applications. That regulatory drag would discourage the innovation and new investment essential to the Internet's growth. As Commissioner Abernathy has cautioned:

> [I]t is important that we also act as technology facilitators — that is — we must recognize and reduce regulatory barriers to entry for emerging technologies through the adoption of policies that tap the benefits of emerging technologies. . . . [W]e should enact rules that allow free market forces to decide whether a particular technology succeeds or fails. In this manner, the market will dictate the success of technologies, not regulators.[29]

The Commission's overarching challenge now is to preserve the favorable market conditions it has already created for IP-enabled services while ensuring that important public policy objectives are not forgotten in the wake of technological progress. It need not look far for the essential tools required to achieve this goal; Congress has already provided them in the Telecommunications Act of 1996. Congress formalized the Commission's long-standing policy of regulatory restraint, finding that "[t]he Internet and other interactive computer services have flourished, to the benefit of all Americans, with a minimum of government regulation."[30] To preserve and promote this success, Congress formally declared that it "is the policy of the United States" to "preserve the vibrant and competitive free market that presently exists for the Internet

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28/ Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11501, 11535-36 ¶ 72 (1998) ("*Report to Congress*").

29/ FCC Commissioner Kathleen Q. Abernathy, "The Importance of the Market," 3G Americas Board Briefing (June 3, 2003).

30/ 47 U.S.C. § 230(a)(4).

and other interactive computer services, unfettered by Federal or State regulation."[31/] Congress further ensured that this unregulatory umbrella would have wide reach by defining the Internet broadly and inclusively, in a manner that must be understood to include IP-enabled services.[32/]

At the same time that it affirmatively declared a policy of unregulation for these services, Congress specified certain key goals and functions in Title II for the Commission to undertake without limitation to the "common carrier" status of a service provider (*e.g.*, universal service and administration of numbering resources). Congress also authorized the Commission to forbear in the public interest from applying any regulation that is not necessary to ensure that services are offered on just, reasonable, and nondiscriminatory terms and conditions or to protect consumers.[33/] In fact, Congress reinforced this authority elsewhere in the 1996 Act: consistent with the Act's overall purpose to "reduce regulation in order to . . . encourage the rapid deployment of new telecommunications technologies,"[34/] Congress directed the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans" using "regulatory forbearance" and "other regulating methods that remove barriers to infrastructure investment."[35/] And finally, Congress preserved the

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31/ *Id.* § 230(b)(2) (emphasis added).

32/ *See id.* § 231(e)(3) ("The term 'Internet' means the combination of computer facilities and electromagnetic transmission media, and related equipment and software, comprising the interconnected worldwide network of computer networks that employ the Transmission Control Protocol/Internet Protocol or any successor protocol to transmit information."); *id.* § 230(f)(1) (defining the Internet as "the international computer network of both Federal and non-Federal interoperable packet switched data networks"); *id.* § 230(f)(2) (defining interactive computer service to include "any information service, system, or access software provider . . . including specifically a service or system that provides access to the Internet . . . .").

33/ *See id.* § 160(a).

34/ Preamble to the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56.

35/ 47 U.S.C. § 157(a) notes.

Commission's longstanding "elastic powers" under Title I of the Communications Act to manage "dynamic new developments in the field of communications,"[36/] of which IP-enabled services are a prime example.

The Commission's and Congress's foresight in securing an unregulated space for the Internet and information services generally has permitted IP-enabled services to emerge in a robust fashion as the communications mode of the future, and the Commission should not depart from this approach. While it is true, as the Commission observes, that "the changes wrought by the rise of IP-enabled communications promise to be revolutionary,"[37/] there is no need for revolutionary change in the unregulatory framework applicable to these services. The Commission already has noted the importance of maintaining a policy of regulatory restraint in this area, and Congress has given it the necessary statutory tools to ensure that the transition from traditional communications services to IP-enabled services will not endanger important public policy concerns. The Commission should use those tools wisely to reaffirm a comprehensive, unregulatory regime for IP-enabled services.

DISCUSSION

The Commission seeks comment on a wide variety of topics relevant to the overall regulatory treatment of IP-enabled services. In the discussion that follows, SBC proposes a comprehensive framework for considering those issues. In Section I, SBC proposes a refined definition for the class of "IP-enabled services" and associated facilities that should be subject to a regime of continued unregulation. In Section II, SBC discusses the Commission's sweeping jurisdiction to maintain that regime. In Section III, SBC explains why IP-enabled services

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36/ *Computer & Communications Indus. Ass'n v. FCC*, 693 F.2d 198, 213 (D.C. Cir. 1982) (quoting *General Tel. Co. of the Southwest v. United States*, 449 F.2d 846, 853 (5th Cir. 1971)).

37/ *NPRM* ¶ 5.

should be classified as Title I information services and why the Commission should cover all bases by forbearing from any otherwise applicable Title II common carrier regulation. In Section IV, SBC describes the sources of the Commission's authority to craft the narrowly tailored regulatory obligations that may be necessary to meet any *non*-common carrier policy objectives implicated by IP-enabled services, and in Section V, SBC explains how IP-enabled services should be categorized so that any such regulatory obligations can be applied only to those services that raise relevant policy concerns. Finally, in Section VI, SBC identifies the discrete policy concerns that require the Commission's attention, and describes the proper regulatory solution for each. The most urgent among these, SBC explains, are intercarrier compensation and access to numbering resources, and the Commission should resolve them in the near term. Next, as SBC shows, the Commission should consider issues concerning 911, disability access, universal service, and consumer protection.

I. THE COMMISSION SHOULD DEFINE IP-ENABLED SERVICES AS THOSE THAT ENABLE END USERS TO SEND OR RECEIVE COMMUNICATIONS IN IP FORMAT OVER AN IP PLATFORM.

The Commission identifies its subject in this proceeding as "IP-enabled services," which it tentatively defines as "services and applications relying on the Internet Protocol family."[38/] Recognizing the "broad scope" of this standard, the Commission then seeks comment on how it might "more rigorously distinguish those specific classes of IP-enabled services, if any, on which we should focus our attention."[39/]

As explained in SBC's pending petition for a declaratory ruling, the Commission should adhere to three key principles in defining the family of services falling within its IP-related

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38/ *Id.* ¶ 1 n.1.

39/ *Id.*

unregulatory regime.[40/] First, it should adopt a broad and inclusive definition that encompasses the full range of services — be they voice, data, video, or any other form — that ride the IP platform, thereby providing a meaningful opportunity for innovation and growth in this market. Second, in order to ensure regulatory certainty, the Commission should articulate bright-line boundaries in stating its definition of IP-enabled services so that this definition can be easily understood by providers and consumers of such services while avoiding reliance on fine technical distinctions that could become obsolete as technologies evolve. Finally, the Commission should adopt an approach that is competitively neutral among all providers (telephone companies, cable companies, wireless companies, satellite companies, and others), so that no provider will experience any special regulatory advantages or disadvantages by virtue of the historic regulatory classification of the non-IP-enabled legacy services it offers. Stated another way, providers of IP-enabled services should not be forced to carry their legacy regulatory baggage into the new competitive market for IP-enabled services.

Consistent with these principles, the Commission should refine its definition of the class of unregulated "IP-enabled services" to consist of (a) IP networks and their associated capabilities and functionalities (*i.e.*, an IP platform), and (b) IP services and applications provided over an IP platform that enable an end user to send or receive a communication in IP format.[41/] Under this definition, the touchstone for identifying an IP-enabled service (and distinguishing the service from a traditional legacy service) is that it reaches or leaves the end

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40/ *See generally* SBC Declaratory Ruling Petition at 25-28.

41/ SBC's petitions refer to such services as "IP platform services." While SBC believes that this term better describes the scope of services and facilities that should fall within the Commission's deregulatory umbrella, SBC uses the Commission's term, "IP-enabled services," throughout these comments to avoid confusion.

user in IP format.[42] This focus on the functionality afforded the end user is consistent with the Commission's repeated recognition that the regulatory treatment of a particular service turns on the nature of the service as delivered to the end user.[43] It is only where a service is either sent to or received by an end user in IP format — and not when an end user merely receives a communication in circuit-switched format — that the end user can tap into the enormous functional capabilities of the IP platform. The Commission's definition should account for this defining feature of IP-enabled services.

Importantly, under the definition proposed above, an offering would not lose its status as an IP-enabled service simply because it interfaces at some point with the PSTN. Indeed, as long as the subscriber can send and receive communications in IP format, *that subscriber* is receiving an IP-enabled service. While, as SBC discusses below, such interconnection with the PSTN may implicate particular policy concerns, the overall regulatory classification of the service at issue should not hinge on those concerns because the Commission retains the authority to craft specific regulations as necessary to address them.

SBC's proposed definition is expansive in that it encompasses IP networks themselves and the services and applications provided over them. Addressing IP-based networks is crucial to creating a rational, unregulatory framework. The quality and range of IP-based services are

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42/ To be clear, by "reaching or leaving the end user in IP format," SBC means the end user's premises. Thus, for example, if an end user originates an IP communication on CPE on its premises, and converts that communication to circuit-switched format before it crosses the demarcation to a service provider's network, the communication would not qualify as an IP-enabled service. In other words, the communication between the end user and the service provider must be in IP format.

43/ *See, e.g.*, *Report to Congress* at 11530 ¶ 59 ("[I]f the user can receive nothing more than pure transmission, the service is a telecommunications service. If the user can receive enhanced functionality, such as manipulation of information and interaction with stored data, the service is an information service."); *see also* 47 U.S.C. § 153(20) (defining an information service based on what "capability" is "offer[ed]").

directly linked to the capabilities of their underlying platforms, such that regulation of the platforms would necessarily affect the myriad products, services, and applications provided over them.[44/] Furthermore, the future development of IP-based communications depends on innovation at *both* the service and facility levels. In addition, the definition proposed above is sufficiently broad to cover both networks and services, including all types of communications — voice, data, video, or anything else — so long as they are sent to or received by an end user in IP format over an IP platform. This inclusiveness reflects the fact that, as noted above, IP platforms are capable of supporting all forms of communications by reducing them to packets that can be commingled and transported over a range of facilities.

The definition described above also benefits from having bright-line boundaries to ensure predictability and certainty. The central aspect of this approach is an emphasis on the ability to send or receive communications in IP format over an IP platform, a distinction that is apparent to, and thus understood by, both providers and consumers of these services. Providers will instantly know what uses of IP will or will not entitle them to the unregulatory umbrella applicable to IP-enabled services, while consumers will likewise know, by virtue of the functionality they receive, how a service will be categorized.

Finally, this approach is competitively neutral, in that it applies to IP-to-the-end-user offerings provided by *any* type of communications provider — including telephone companies, cable companies, wireless providers, satellite companies, and any other type of entity regardless of whether it is a "carrier" with respect to its legacy non-IP services. Similarly, it applies to any type of facility — such as copper, coaxial cable, fiber, spectrum, powerline and any other medium used as part of the IP platform. This is important given the openness and modularity of

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44/ *See* SBC Declaratory Ruling Petition at 29.

the IP platform, which, as noted above, presents end users with varied choices between (i) obtaining particular components (*e.g.*, software, customer premises equipment ("CPE"), broadband services) from individual providers and managing their own networks, or (ii) purchasing wholly or partially assembled IP platform services from one or more service providers. Consistent regulatory treatment of all such components and providers will ensure that the choices between these options are driven by marketplace forces, not artificial regulatory distinctions.

The definition of "IP-enabled services" used in the *NPRM* — "services and applications relying on the Internet Protocol family" — is broader than that described above, and as a result, is somewhat overinclusive. As the Commission recently recognized, it is important not to confuse genuine IP platform services with services, such as AT&T's PSTN-IP-PSTN voice service, that rely on IP technology only "in the middle" without offering customers the enhanced functionality associated with IP platforms. In the Commission's own words, this is not "the kind of use of the 'Internet or interactive services' that Congress sought to single out for exceptional treatment."[45/] At the same time, the Commission's definition fails to include IP-specific *facilities*, such as routers, over which IP-enabled services are provided and to which they are inextricably linked.[46/] This underinclusiveness could render any regulatory solutions the Commission adopts in this proceeding incomplete.

In short, the Commission should rule that any service that reaches or leaves a customer in IP format over an IP platform will fall under the unregulatory umbrella the Commission

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45/ Order, *Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, WC Docket No. 02-361, FCC 04-97 ¶ 17 (rel. Apr. 21, 2004) ("*AT&T Access Charge Order*").

46/ *See* SBC Declaratory Ruling Petition at 29.

establishes in this proceeding, as should the underlying IP-specific facilities.[47/] This definition is sufficiently versatile to accommodate future services that cannot yet be anticipated. As such, it is a more preferable approach to defining these services than that reflected in the categories recognized by the Commission in the 1998 *Report to Congress* — specifically, phone-to-phone, computer-to-phone, and computer-to-computer, which the Commission tentatively used to categorize different VoIP services.[48/] These categories are considerably outdated, because the evolution of the CPE used with IP-enabled services increasingly blurs any meaningful distinction between "telephones," "computers," and various other devices (such as the IP adapters offered by some VoIP providers) that can be used to provide such services. Moreover, by their reliance on "phones," the categories described in the *Report to Congress* are inherently voice-centric and largely ignore video, data, and other IP-enabled services. Rather than building regulatory distinctions on the tenuous differences in the CPE used for voice communications, the Commission should employ a more holistic approach that focuses on the functional attributes of IP-services, as SBC proposes above.

II. IP-ENABLED SERVICES ARE INHERENTLY AND INDIVISIBLY INTERSTATE COMMUNICATIONS SUBJECT TO THE COMMISSION'S JURISDICTION.

The Commission seeks guidance on "the appropriate basis or bases for asserting federal jurisdiction over the various categories of IP-enabled services"[49/] and the extent to which "IP-enabled service[s] should be deemed subject to *exclusive* federal jurisdiction with regard to

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47/ *See supra* note 42.

48/ *See NPRM* ¶ 44 (asking comment on whether the Commission should revisit any regulatory interpretations, including those set forth in the *Report to Congress*).

49/ *Id.* ¶ 40.

traditional common carrier regulation."[50] The answer to this question is straightforward. The Commission has clear jurisdiction over all "interstate communications," and such communications undoubtedly include IP-enabled services. The inherently interstate nature of these services derives from the nationally and internationally dispersed networks over which they are provided. These services are also *indivisibly* interstate because their portable nature and the inherent geographic indeterminacy of IP transmissions make it infeasible to segregate any intrastate component of these services for regulatory purposes. As such, IP-enabled services fall categorically within the Commission's exclusive jurisdiction.

A. IP-Enabled Services Are Overwhelmingly Interstate in Nature.

The Communications Act gives the Commission broad jurisdiction over "all interstate and foreign communication by wire or radio."[51] The Act defines "communication by wire" as "the transmission of writing, signs, signals, pictures, and sounds of all kinds by aid of wire, cable, or other like connection between the points of origin and reception of such transmission, including all instrumentalities, facilities, apparatus, and services . . . incidental to such transmission,"[52] and "communication by radio" as "the transmission by radio of writing, signs, signals, pictures, and sounds of all kinds, including all instrumentalities, facilities, apparatus, and services . . . incidental to such transmission."[53] IP-enabled services, as explained above, are communications by wire or radio, and the IP platform over which IP-enabled services are transmitted is clearly an instrumentality, facility, or apparatus required for such transmission.

50/ *Id.* ¶ 41.

51/ 47 U.S.C. § 152(a).

52/ *Id.* § 153(52).

53/ *Id.* § 153(33).

IP-enabled services are also inherently interstate. This is true for the same reasons the Commission has always deemed Internet-based services to be interstate in nature.[54] Internet-based services necessarily involve interstate communications because of the dispersed nature of the Internet itself.[55] Internet communications "interact[] with a global network of interconnected computers,"[56] and thus "involve computers in multiple locations, often across state and national boundaries."[57] The Commission relied on precisely these aspects of Internet-based services when it asserted jurisdiction in 1998 over DSL services,[58] and in 1999 and 2001 over dial-up services offered by ISPs,[59] both of which necessarily involve a fundamental interstate component.

Likewise, IP-enabled services rely on the same dispersed networks that constitute the Internet, and the key enabling equipment that provides the stored information and the processing capabilities with which subscribers interact (such as web and feature servers) will in most cases

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54/ *See, e.g.*, Order on Remand and Report and Order, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic*, 16 FCC Rcd 9151, 9176 ¶ 54 (2001) ("*ISP Remand Order*") (noting that the Commission "ha[s] always held [ISP-bound traffic] to be predominantly interstate for jurisdictional purposes), *cert. denied sub nom. Core Communications, Inc. v. FCC*, 123 S. Ct. 1927 (2003); *id.* at 9177-78 ¶ 55 ("[T]he Commission has been consistent in its jurisdictional treatment of ISP-bound traffic.").

55/ *See, e.g.*, *id.* at 9178 ¶ 58; Memorandum Opinion and Order, *GTE Telephone Operating Cos.*, 13 FCC Rcd 22466, 22468 ¶ 5 (1998) ("*GTE Order*") (describing the Internet as "an international network of interconnected computers enabling millions of people to communicate with one another and to access vast amounts of information from around the world"); Declaratory Ruling and Notice of Proposed Rulemaking, *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, 17 FCC Rcd 4798, 4799 ¶ 1 n.1 (2002) ("*Cable Modem Order*") (defining "the Internet" as a "global information system"), *rev'd on other grounds sub nom. Brand X Internet Servs. v. FCC*, 345 F.3d 1120 (9th Cir. 2003) ("*Brand X*").

56/ *ISP Remand Order* at 9178 ¶ 58.

57/ *Id.* at 9178 ¶ 58 n.115.

58/ *GTE Order* at 22483 ¶ 33.

59/ *See, e.g.*, *ISP Remand Order* at 9176 ¶ 54.

be located outside the state in which a particular user is located. For example, the transmission, storage, and processing associated with an IP-enabled service is likely to involve servers, gateways, and other equipment located within and outside of the state in which the user of the IP-enabled service is located. And some IP-enabled services, such as SBC's Hosted IP Communications Service ("HIPCS"), allow an end user to make a VoIP call while simultaneously pursuing other tasks that likewise entail interstate communications, such as accessing the Internet and obtaining calendars, contact lists, and other information stored on a distant database.[60/] Moreover, with an IP-enabled service, like other Internet-based services, a "user may, for example, access websites that reside on servers in various state[s] or foreign countries, communicate directly with another Internet user, or chat on-line with a group of Internet users located in the same local exchange or in another country, and may do so either sequentially or simultaneously."[61/] Thus, when end users use an IP-enabled service to communicate with each other, the interstate nature of the service is engaged no matter where the end users are physically located.[62/]

60/ *See* http://www02.sbc.com/Products_Services/Business/ProdInfo_1/1,,1358--1-1-0,00.html (last visited May 26, 2004).

61/ *GTE Order* at 22478-79 ¶ 22 (footnote omitted). For example, "[O]n a sports page, only the format of the webpage may be stored at the host computer in Chicago. The advertisement may come from a computer in California (and it may be a different advertisement each time the page is requested), the sports scores may come from a computer in New York City, and a part of the webpage that measures Internet traffic and records the user's visit may involve a computer in Virginia. If the user decides to buy something from this webpage, say a sports jersey, the user clicks on the purchase page and may be transferred to a secure web server in Maryland for the transaction." *ISP Remand Order* at 9178 ¶ 58.

62/ *Cf. GTE Order* at 22479 ¶ 23 ("'mixed-use' special access lines (*i.e.*, lines carrying both intrastate and interstate traffic) are subject to the Commission's jurisdiction where it is not possible to separate the uses of the special access lines by jurisdiction") (citing Decision and Order, *MTS and WATS Market Structure Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board*, 4 FCC Rcd 5660, 5660-61 ¶ 7 (1989)).

That IP-enabled services are interstate communications is further underscored by their inherent portability: end users may use them wherever they have access to a broadband connection. For example, with SBC's HIPCS product, end users will be able to take their laptops to any location while "virtually" remaining in their home office. And VoIP permits telephone calls to be placed with the same geographical indifference: depending on the particular service, a user can plug his phone into any broadband connection anywhere in the country, and the call will appear to be placed from the user's chosen area code. Indeed, in the *Pulver Declaratory Ruling*, the Commission found that the FWD service is an interstate service based in part on the fact that a user's "physical location can continually change."[63] Thus, even where an IP-enabled service may have an "intrastate" component, the service itself is properly deemed interstate because the overwhelming majority of communications will be interstate, thus placing the service within the Commission's jurisdiction.

B. IP-Enabled Services Are Indivisibly Interstate Because It Is Infeasible to Segregate Any Intrastate Component.

IP-enabled services are also *indivisibly* interstate because, even when they can be said to have interstate and intrastate components, differentiating between both those components is completely impractical if not impossible.[64] The Commission,[65] courts,[66] and carriers[67] have

[63] *Pulver Declaratory Ruling* at 3320 ¶ 20.

[64] Although the Commission described this principle in the *Pulver Declaratory Ruling* as the "mixed use" doctrine, *see id.* at 3321-22 ¶ 22, the Commission has generally referred to it as the "inseverability doctrine" when applied to services and "mixed use" only when applied to facilities. *Compare, e.g.*, *GTE Order* at 22481 ¶ 28 ("Under the inseverability doctrine, pre-emption of state regulation is permissible 'where it is not possible to separate the interstate and the intrastate components of the asserted FCC regulation.'") (quoting *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 375 n.4 (1986)), *with GTE Order* at 22479 ¶ 23 (explaining that the "mixed-use facilities rule" originated with respect to special access lines for which interstate and intrastate usage could not be separated). Whichever term is used, the principle remains the

long recognized that, when the interstate and intrastate components of a service are inseverable, the Commission has jurisdiction over the complete service, including any intrastate component.[68]

A single IP-enabled service often involves simultaneous interaction with a dispersed network of end users, websites, and databases located in various states or countries. This obscures any distinction between the interstate and intrastate components of an IP-enabled service. Additionally, the nature of IP technology itself renders any attempt to isolate an intrastate component of such services impractical. As described above, IP technology translates

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same: exclusive Commission jurisdiction prevails when it is impossible or impractical to separate the interstate and intrastate components of the traffic or facility at issue.

65/ *See, e.g.*, First Report and Order and Further Notice of Proposed Rulemaking, *Promotion of Competitive Networks in Local Telecommunications Markets*, 15 FCC Rcd 22983, 23031-32 ¶ 107 (2000) ("Because fixed wireless antennas are used in interstate and foreign communications and their use in such communications is inseverable from their intrastate use, regulation of such antennas that is reasonably necessary to advance the purposes of the Act falls within the Commission's authority.") (footnote omitted).

66/ *See, e.g.*, *Louisiana Pub. Serv. Comm'n*, 476 U.S. at 375 n.4 (addressing the Commission's jurisdiction "where it was not possible to separate the interstate and intrastate components of the asserted FCC regulation"); *Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523, 543 (8th Cir. 1998) (observing that "the services provided by ISPs may involve both an intrastate and an interstate component and it may be impractical if not impossible to separate the two elements"); *Illinois Bell Tel. Co. v. FCC*, 833 F.2d 104 (D.C. Cir. 1989); *California v. FCC*, 905 F.2d 1217 (9th Cir. 1990); *Public Util. Comm'n of Tex. v. FCC*, 886 F.2d 1325 (D.C. Cir. 1989); *North Carolina Utils. Comm'n v. FCC*, 552 F.2d 1036 (4th Cir. 1977); *North Carolina Utils. Comm'n v. FCC*, 537 F.2d 787 (4th Cir. 1976).

67/ AT&T Corp. Petition for Declaratory Ruling, *AT&T Corp. Petition for Declaratory Ruling Regarding Enhanced Prepaid Calling Card Services*, WC Docket No. 03-133, at 13 (filed May 15, 2003) ("AT&T Calling Card Petition") ("The Commission has never attempted separately to identify and regulate each of the constituent 'calls,' or 'communications,' in th[e context of Internet traffic]. Rather, the Commission has simply deemed the entire session jurisdictionally interstate.") (citations omitted).

68/ To the extent a state may be deemed to have concurrent jurisdiction with the Commission over the intrastate component of such a service, the Commission should preempt any regulation that is inconsistent with federal policy, as discussed further *infra* section III.C.

all forms of communications into packets, permitting these packets to be flexibly and efficiently routed to their destinations. As convergence continues, a data stream may at any given time include packets (consisting of voice, data, video, or some combination thereof) bound for points both within and outside of a particular state. However, there is no commercially feasible way for carriers to track, on a bit-by-bit basis, the exact routes of those packets. This is because the routing of IP-based communications is based on matching a numeric IP address to a particular device — such as an end user's computer or IP phone, a router, or a server, to name a few — rather than an immovable geographic destination. The resulting portability of IP-enabled services and devices — *i.e.*, the ability to access these services by plugging an IP device into any broadband connection — itself thwarts any effort to isolate an intrastate "component" of such services.

Given these inherent qualities of the Internet and IP technology, it is well-established that "the interstate and intrastate components [of such services] cannot be reliably separated"[69/] and that they are thus categorically subject to the Commission's jurisdiction.[70/] The Commission reached the same conclusion with respect to FWD in the *Pulver Declaratory Ruling*, concluding that it had jurisdiction over that service because "it would be impractical to determine whether

69/ *ISP Remand Order* at 9175 ¶ 52 (citing *Southwestern Bell Tel. Co.*, 153 F.3d at 543).

70/ *Id.* (citations omitted). Although the D.C. Circuit has twice urged the Commission to consider more carefully whether, as a substantive matter, dial-up ISP-bound traffic is subject to the "reciprocal compensation" provision of section 251(b)(5), it has expressly affirmed the Commission's long-standing *preemptive jurisdiction* over ISP services. *See Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1, 5 (D.C. Cir. 2000) ("[t]here is no dispute that the Commission has historically been justified" in treating dial-up Internet access as interstate); *see also WorldCom, Inc. v. FCC*, 288 F.3d 429 (D.C. Cir. 2002).

there was any intrastate component to FWD given the fact that FWD's information service as provided to its members occurs solely within the confines of the Internet."[71]

The difficulties in separating the interstate and intrastate components of IP-enabled services exist regardless of whether one end of that service touches the PSTN. While it may be easy enough to locate the PSTN end of such a communication, it is still commercially infeasible to identify the physical location at the IP end. Indeed, while a POTS subscriber may be located at a known geographic address, a VoIP subscriber, using the same VoIP device, can call that POTS subscriber from across the street, across the state, across the country, or across the world — without any practicable way to identify that VoIP subscriber's location.[72] Thus, for the same basic reason that it would be infeasible to carve out an "intrastate" component of IP-enabled services that (like Pulver's VoIP offering) always have *both* feet in an IP network, it would also be difficult to carve out an "intrastate" component of IP-enabled services that, like SBC's HIPCS product or Vonage's VoIP service, can interconnect with the PSTN and thus permit communications with *one* foot in an IP network.

Furthermore, forcing providers to develop a capability to identify those communications that are actually intrastate in an IP-enabled service would unnecessarily burden the future development of such services. As the Commission explained in its *Pulver Declaratory Ruling*, given the inherent geographic anonymity of the IP addressing schemes, "[a]ttempting to require [the provider] to locate its members for the purpose of adhering to a regulatory analysis that served [the legacy PSTN] would be forcing changes on this service for the sake of regulation

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71/ *Pulver Declaratory Ruling* at 3320 ¶ 20.

72/ *See, e.g.*, Petition for Declaratory Ruling, *Vonage Holdings Corp. Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. WC 03-211, at 28-29 (filed Sept. 22, 2003).

itself, rather than for any particular policy purpose. . . . [I]mposing this substantial burden would make little sense and would almost certainly be significant and negative for the development of new and innovative IP services and applications."[73] In sum, IP-enabled services are properly deemed indivisibly interstate communications within the Commission's jurisdiction.

III. IP-ENABLED SERVICES ARE TITLE I INFORMATION SERVICES AND DO NOT FALL WITHIN TITLE II.

The Commission seeks comment on "the proper legal classification and appropriate regulatory treatment" of each discrete category of IP-enabled services."[74] As a first step toward ensuring an unregulated environment for IP-enabled services, the Commission should conclude that such services, as defined by SBC, are "information services," and therefore subject to regulation under Title I, but outside the scope of Title II common carrier regulations and the other substantive Titles of the Act. In those limited instances in which a service does not appear to fall squarely within the information services category, the Commission should forbear from applying legacy Title II common carrier regulation or any other substantive Titles of the Act to that service. The Commission should likewise find that any state-level counterparts to such regulation will almost invariably frustrate important federal policy and will thus be preempted.

A. IP-Enabled Services Should Be Deemed Title I Information Services.

In light of their various capabilities described above, IP-enabled services that satisfy SBC's proposed definition — that is, services that enable customers to send or receive communications in IP format[75] — are best characterized as "information services." IP-enabled services utilize the Internet to provide an information and communications management tool — a

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73/ *Pulver Declaratory Ruling* at 3320-21 ¶ 21, 3323 ¶ 24.

74/ *NPRM* ¶ 42.

75/ *See supra* note 42.

means of fusing computing power and communications. Use of an IP platform to provide a service that originates or terminates in IP, unlike use of the PSTN to originate and terminate telephone calls, directly offers "a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications,"[76/] even if it also offers services resembling those regulated under other substantive Titles of the Act. IP-enabled services may allow end users to connect to the Internet (a functionality that the Commission has long deemed an information service), gain access to stored files (such as voicemail or directory information), protect their privacy through customized call screening, and route communications in a manner customized to the end user's preferences. Many IP-enabled services also include a net protocol conversion that allows customers to interface with the PSTN — traditionally a hallmark of information services under the Commission's precedent.[77/] As the

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76/ 47 U.S.C. § 153(20).

77/ *See, e.g., AT&T Access Charge Order* ¶ 4 & n.13 ("[G]enerally, services that result in a protocol conversion are enhanced services . . . ."); First Report and Order and Further Notice of Proposed Rulemaking, *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended*, 11 FCC Rcd 21905, 21956 ¶ 104 (1996) ("*Non-Accounting Safeguards Order*") (explaining that a protocol conversion "that enables an end-user to send information into a network in one protocol and have it exit the network in a different protocol clearly 'transforms' user information," while "services that interpret and react to protocol information associated with the transmission of end-user content clearly 'process' such information"). As the Commission observed in the *AT&T Access Charge Order*, the service at issue there involved no *net* protocol conversion. *See AT&T Access Charge Order* ¶ 13. The occurrence of a net protocol conversion should not be considered an *essential* criterion for classification as an "information service," even though it often is a *sufficient* condition. *NPRM* ¶ 44 (noting that the Commission's definition of "enhanced services" includes services that "'employ computer processing applications that act on the . . . protocol . . . of the subscriber's transmitted information'" and seeking comment on whether the Commission should "continue to accord this specific distinction dispositive weight when classifying services") (quoting 47 C.F.R. § 64.702(a)). Some IP-enabled services, such as Pulver's FWD service, may not involve any sort of protocol conversion because the communications they support are both sent and received in IP format. Yet these services are still considered information services. *See Pulver Declaratory Ruling* at 3313-14 ¶ 11.

Commission recently found, a service that offers such "computing capabilities" must be considered an information service.[78]

As IP-enabled services develop, it will become even more obvious that they are properly characterized as information services rather than telecommunications services. The IP-enabled services being introduced today allow customers to design and individualize many aspects of their communications directly from their desktop — a dramatic change from centrally controlled telecommunications networks. And these services are evolving toward even greater integration of voice, data, and video applications, allowing manipulation of data in ways that blend traditional categories and melt away old regulatory distinctions. The Commission should account for this inevitable evolution of IP-enabled services by declaring that they are inherently information services.

The alternative is to adopt a regressive "telecommunications service" classification for such services that would become obsolete upon its release. But the Commission should reject simplistic "quacks like a duck" arguments that claim VoIP services should be regulated because they bear some similarity to traditional telephone services. In reality, voice is just one of the countless applications that will be offered as part of IP-enabled services. VoIP is no more a traditional telephone service than email is a traditional mail service — it is a revolutionary and disruptive advancement that provides consumers with much greater capabilities. Investment and innovation in IP-enabled services would be stopped in its tracks if regulators were to dissect IP-enabled services and force them into outdated regulatory silos or even if they were to spend years debating the issue. The Commission is in a unique position to preserve an environment of regulatory restraint that has allowed IP-enabled services to develop in the first instance.

78/ *Pulver Declaratory Ruling* at 3313-14 ¶ 11.

Classifying IP-enabled services as information services would not preclude the Commission from exercising its Title II non-carrier-specific authority or its broad Title I authority to address specific public policy concerns, as discussed below. Nor would it have any effect on existing rights of access to legacy, non-IP-based services and certain of the facilities that support them. First, no matter what services an ILEC might provide over given facilities in its network, a CLEC would still be entitled to lease network elements to the extent the Commission has found such unbundling to be consistent with section 251(d)(2). For example, to the extent that the Commission retains unbundling obligations for the copper loop, those obligations would continue notwithstanding a determination that the ILEC's IP-enabled services offered over that loop fall outside the scope of Title II common carrier regulation. Furthermore, to the extent the Commission deems necessary, ILECs would remain subject to existing *Computer II* obligations for non-IP-enabled information services, thus ensuring unbundled access to legacy transmission services.

B. IP-Enabled Services Are Not Telecommunications Services Falling Within Title II of the Act.

The same dynamic capabilities that cause IP-enabled services to be classified as information services correspondingly *prevent* them from falling neatly within any of the Act's substantive Titles. The structure of the current Communications Act was established at a time when, for the most part, particular *services* were tightly linked to particular *facilities* and those facilities were owned by monopoly or near-monopoly providers. Those providers are subject to disparate regulatory regimes codified in the Act's service-specific Titles (telephone companies are subject to Title II, broadcasters to Title III, and cable companies to Title VI). IP technology obliterates those old regulatory assumptions.

IP technology supports a variety of end-user applications and services, whose functionalities mimic those of traditional communications services (such as voice and data) that carriers have long provided to end users over legacy networks specially designed for those services. The IP platform converts voice and data into packets and transmits them as part of a larger bitstream containing a variety of other applications. As a result, end users can use the Internet platform and its multiplicity of underlying networks for services and applications that look like (but in fact are not) "telecommunications services" regulated under Title II (for example, VoIP services that originate and/or terminate in IP format); "broadcast services" regulated under Title III (for example, streaming audio); and "cable services" regulated under Title VI (for example, switched IP video services). Because IP-enabled services encompass all of these functions, they transcend the traditional statutory categories and cannot be appropriately regulated under any of these substantive Titles.

The inherent capability of IP-enabled services to meld a multitude of integrated services traditionally offered by siloed industry segments is consistent with and reinforces the existing distinction between "information services" and "telecommunications services" as the Commission has historically interpreted those terms. The Commission should not fundamentally reinterpret those two terms, even if such reinterpretation could be consistent with the constraints of their statutory definitions.[79/] The dichotomy between unregulated information (or "enhanced") services and regulated telecommunications (or "basic") services, while not always perfectly clear, has been a cornerstone of telecommunications policy since *Computer II*. Many

79/ *See NPRM* ¶ 44 (seeking comment on whether the Commission's previous interpretations of the statutory classifications "are or are not suitable for proper classification of IP-enabled services"); *see also id.* ¶ 45 (stating that "the disparate regulatory treatment assigned to providers of 'telecommunications services' and 'information services' might well be inappropriate in the context of IP-enabled services").

providers have structured their business plans specifically around the present understanding of the differences between those regulatory categories. Introducing radically new interpretations or applications of those terms now could dramatically alter the way in which existing products and services are designed, marketed, and regulated, potentially causing confusion for both consumers and providers while forcing providers to alter their business operations in light of the possible shift in regulatory obligations.

C. The Commission Should Forbear from Applying Title II Common Carrier Regulation to IP-Enabled Services To the Extent Such Services Do Not Fall Squarely Within the Category of Information Services.

To guard against the possibility that a given IP-enabled service, in its current form, may not appear to fall squarely into the information services category, the Commission should eliminate any doubt concerning the unregulated status of IP-enabled services by using its authority under section 10 of the Act to forbear from applying Title II common carrier regulation to these services (as well as Title III and Title VI regulation) to the extent such regulation might otherwise be found to apply. The Commission notes in the *NPRM* that "[u]se of this forbearance authority might be appropriate if the statutory classification accorded to a particular class of IP-enabled services leads to regulatory consequences that are neither necessary nor appropriate in the context of such services."[80/] In fact, subjecting any IP-enabled service to Title II common carrier regulation, even if it is found to fall within the statutory definition of a "telecommunications service," would be both unnecessary and inimical to the development of such services generally.

For the reasons stated by SBC in its pending petition for forbearance regarding IP platform services, the Commission should thus forbear from Title II common carrier regulation at

80/ *Id.* ¶ 47.

the same time that it finds that all IP-enabled services are unregulated information services under Title I.[81/] The Commission's previous ruling on cable modem service provides a valuable lesson in this regard. There, after concluding that cable modem service is an "information service" outside the scope of Title II common carrier regulation, the Commission proceeded on its own motion to waive the application of *Computer II* requirements but only tentatively concluded that forbearance from applying *any* Title II common carrier regulation was appropriate.[82/] After the Commission released its *Cable Modem Order*, the Ninth Circuit reversed its ruling on the classification issue (though it expressly preserved the Commission's power to forbear from Title II regulation despite finding that cable modem service contains a "telecommunications service" component).[83/] But because the Commission had only *tentatively* concluded that forbearance was appropriate, the unregulated status of cable modem service remains in doubt.

81/ *See generally* SBC Forbearance Petition at 2-12. Although portions of that petition refer to forbearance from Title II regulation generally, that language was intended as shorthand for common carrier regulation under Title II, as other portions of the petition make clear. *See, e.g., id.* at 4 (stating that the forbearance criteria under section 10 of the Communications Act apply "to require forbearance from Title II common carrier regulation of IP platform services"). SBC's request for forbearance is thus limited to common carrier regulation under Title II, and does not encompass requirements falling within the Commission's Title II non-carrier-specific authority, as defined *supra.*

82/ *See Cable Modem Order* at 4825-26 ¶ 45, 4847 ¶ 94. As the Commission explained:

> Given that cable modem service will be treated as an information service in most of the country, we tentatively conclude that the public interest would be served by the uniform national policy that would result from the exercise of forbearance to the extent cable modem service is classified as a telecommunications service. We also believe that forbearance would be in the public interest because cable modem service is still in its early stages; supply and demand are still evolving; and several rival networks providing residential high-speed Internet access are still developing.

Id. at 4847-48 ¶ 95.

83/ *Brand X*, 345 F.3d at 1132 n.14.

The Commission need not be tentative in the use of its forbearance authority here; it should forbear from the application of Title II common carrier regulation to IP-enabled services. The Commission must ensure competitive neutrality in this area by adopting congruent rules for intermodal providers of competing services.[84/] For that reason alone, if the Commission responds to the *Brand X* decision by forbearing from the application of Title II obligations to cable modem service, it will be legally obligated to forbear to the same extent from the application of such regulations to any IP-enabled service that might be characterized as a telecommunications service under the Ninth Circuit's reasoning.[85/]

Indeed, the Act requires forbearance here even apart from the need to ensure consistency with the Commission's cable modem policies in the wake of the *Brand X* decision. Section 10 provides that the Commission "shall forbear" from applying regulations that are (1) "not necessary to ensure that . . . charges, practices, classifications, or regulations . . . are just and reasonable and are not unjustly or unreasonably discriminatory" and (2) "not necessary for the protection of consumers," and where (3) forbearance would be in "the public interest."[86/] In assessing the third of these criteria, the Act specifically requires the Commission to consider whether forbearance "will promote competitive market conditions."[87/] As discussed in more detail in SBC's forbearance petition, each of these criteria is met here.

84/ *See generally United States Telecom Ass'n v. FCC*, 359 F.3d 554, 578-90 (D.C. Cir. 2004) ("*USTA II*").

85/ *See Brand X*, 345 F.3d at 1129 ("[U]nlike other ISPs, [a cable modem provider] controls all of the transmission facilities between its subscribers and the Internet. . . . [T]o the extent that [a cable operator] provides its subscribers Internet transmission over its cable broadband facility, it is providing a telecom service.") (quoting *AT&T Corp. v. City of Portland*, 216 F.3d 871, 877-78 (9th Cir. 2000)).

86/ 47 U.S.C. § 160(a).

87/ *Id.* § 160(b).

First, Title II common carrier regulation is not necessary to ensure that IP platform services will be offered in a just, reasonable, and nondiscriminatory manner.[88/] As noted above, the market for IP-enabled services is already highly competitive and operates pursuant to cooperative business arrangements. Thus, market forces will continue to ensure that rates will be kept at reasonable levels and that providers' practices — with respect to consumers and to each other — will remain reasonable and nondiscriminatory.

Second, Title II common carrier regulation is not necessary to protect consumers.[89/] Consumers already have benefited greatly from the hands-off approach that has made the Internet's exponential growth possible.[90/] In fact, not only would regulation fail to afford consumers any additional protections, but it would in fact harm them by providing disincentives to continued innovation and thus limit the range of IP-enabled services that are available. And, as discussed below, forbearance will neither disturb the enforcement of generally applicable consumer protections nor preclude the development of additional requirements specifically tailored to address certain public policy objectives. In particular, the Commission has authority

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88/ *Id.* § 160(a)(1); *see also* SBC Forbearance Petition at 11.

89/ 47 U.S.C. § 160(a)(2); *see also* SBC Forbearance Petition at 10-11.

90/ The Commission has recognized that competition is more effective than regulation for protecting consumers:

> Competitive markets are superior mechanisms for protecting consumers by ensuring that goods and services are provided to consumers in the most efficient manner possible and at prices that reflect the cost of production. Accordingly, where competition develops, it should be relied upon as much as possible to protect consumers and the public interest.

1997 Access Charge Reform Order at 16094-95 ¶ 263.

to implement essential policy goals related to consumer protection without any need to classify IP-enabled services as telecommunications services.[91]

Finally, forbearance is needed to serve the public interest.[92] Title II common carrier regulation would selectively impose costs on certain providers of IP-enabled services, discouraging new entrants from offering such services while driving existing providers to tailor services based on regulatory requirements rather than consumer needs. This result would be contrary to the Commission's undeniable public interest obligation under section 706 of the 1996 Act to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability" through "regulatory forbearance" and "other regulating methods that remove barriers to infrastructure investment."[93] In order to promote these goals, the Commission should reinforce its conclusion that IP-enabled services are information services by granting SBC's petition for forbearance. Doing so will not disrupt the Commission's authority to address the various public policy objectives discussed below.

91/ *See infra* section VI.F (discussing the application of consumer protection laws to IP-enabled services).

92/ 47 U.S.C. § 160(a)(3); *see also* SBC Forbearance Petition at 5-10.

93/ 47 U.S.C. § 157(a) note; *see also id.* § 230(b)(2). Although the Commission has not viewed section 706 as an *independent* source of forbearance authority, it has emphasized that the mandate of section 706 to promote broadband investment through "regulatory forbearance" weighs heavily in favor of forbearing under section 10 from unnecessary regulation of advanced services. *See* Memorandum Opinion and Order and Notice of Proposed Rulemaking, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 13 FCC Rcd 24011, 24044-45 ¶ 69 (1998) ("[S]ection 706(a) directs the Commission to use the authority granted in other provisions, including the forbearance authority under section 10(a), to encourage the deployment of advanced services.").

D. The Commission Should Preempt State Regulations of IP-Enabled Services That Negate Clear Federal Policies.

For the same reasons that forbearance from any otherwise applicable Title II common carrier regulation is appropriate for all IP-enabled services, the Commission should affirmatively preempt any state-level counterparts to such regulation as irreconcilable with federal policy in this area, and should likewise make clear that any other state regulations that undermine the congressionally mandated policy of unregulation will be preempted. If (as it should) the Commission determines that IP-enabled services are interstate information services as a categorical matter, a state cannot then rule that any intrastate component of such services should be subject to common carrier or other state regulation. While the Commission must accommodate valid state interests that are *consistent* with federal policy,[94/] it is specifically empowered to preempt those state regulations that would "negate valid FCC regulatory goals" with respect to the interstate portion of a communication.[95/]

The Commission should determine that its preemptive power extends both to any state-level regulation that corresponds to Title II "common carrier" regulation — *i.e.*, regulations of the rates, terms, and conditions for providing service — and to any other type of state regulation that will burden the provision of IP-enabled services and interfere with Congress's vision of an IP-enabled services market unfettered by regulation. For example, a state 911- or E-911-related regulation, which might not strictly be categorized as a regulation of the terms of service, could in some cases conflict with federal policy in this area. Accordingly, the Commission should not

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94/ *See California v. FCC*, 39 F.3d 919, 932 (9th Cir. 1994) ("*California III*").

95/ *Id.* at 931; *see also NARUC v. FCC*, 880 F.2d 442, 429 (D.C. Cir. 1989) (stating that "the *only* limit that the Supreme Court has recognized on a state's authority over intrastate telephone service occurs when the state's exercise of that authority negates the exercise by the FCC of its own lawful authority over interstate communication"); *GTE Order* at 22481 ¶ 28; *Pulver Declaratory Ruling* at 3320 ¶ 20.

limit any description of its preemptive power to state regulation that resembles Title II common carrier regulation, and it should further clarify that such preemption applies across the board to protect *all* providers of IP-enabled services from regulation. This is not to say *every* state regulation of any type would necessarily be subject to preemption. A generally applicable state consumer protection requirement may not conflict with the Commission's unregulatory approach, and thus would not be presumptively preempted. But the Commission should make clear that its broad unregulatory approach leaves little room for state regulation of IP-enabled services as a general matter, and that most regulations targeted at IP-enabled services, or carried over to such services from the common carrier/public utility regulatory regime, are presumptively preempted.

Preemption is entirely appropriate. As an initial matter, a prerequisite for state regulation is that the service in question is either purely "intrastate" or has severable "interstate" and "intrastate" components that are amenable to separate federal and state regulatory regimes. As discussed above, however, IP-enabled services are primarily interstate and, as a practical matter, do *not* contain a severable intrastate component.[96/] Indeed, requiring providers of IP-enabled services to develop the capability to isolate such a component solely to facilitate the imposition of state regulation would "negat[e] federal objectives for the interstate component" by imposing costly and unreasonable burdens that would ultimately impede the development of these services.[97/] As the Commission explained in its *Pulver Declaratory Ruling*, "In a dynamic market such as the market for Internet applications like FWD, we find that imposing this

96/ *See California III*, 39 F.3d at 931-33; *GTE Order* at 22481 ¶ 28; *Pulver Declaratory Ruling* at 3320 ¶ 20 (stating that a service is subject to exclusive federal jurisdiction if it is not "practically and economically possible to separate [its] interstate and intrastate components . . . without negating federal objectives for the interstate component").

97/ *Pulver Declaratory Ruling* at 3320 ¶ 20.

substantial burden would make little sense and would almost certainly be significant and negative for the development of new and innovative IP services and applications."[98/] The same is true for all IP-enabled services. Indeed, imposing this burden would undermine the Commission's authority with respect to IP-enabled services. As AT&T explained in another proceeding:

> With the proliferation of broadband networks and enhanced services — including the Internet — the prevalence of services that combine enhanced communications and voice call routing will only increase. Attempts to assert intrastate jurisdiction over such services by focusing in isolation on one aspect of the service — the routing of the voice call — threatens to undermine the ability of the Commission to fulfill its statutory responsibility to regulate interstate communications.[99/]

Furthermore, as a general matter, most state regulation of IP-enabled services is not only *unnecessary* in light of the highly competitive marketplace for IP-enabled services, but would affirmatively discourage innovation and investment by imposing burdensome costs on providers. That would thwart the clear federal policy embodied in the Act of promoting the development and deployment of this class of services without governmental intervention. The Commission affirmed this principle in asserting its authority to preempt state regulation of Pulver's FWD service, noting that because that service "is an unregulated information service[,] . . . *state* regulations that seek to treat FWD as a telecommunications service or otherwise subject it to public-utility type regulation would almost certainly pose a conflict with [the federal] policy of nonregulation."[100/]

The Commission should confirm its authority and intention to preempt any such state regulation going forward. This is particularly important now, in light of emerging activity at the

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98/ *Id.* at 3323 ¶ 24.

99/ AT&T Calling Card Petition at 13-14.

100/ *Pulver Declaratory Ruling* at 3316 ¶ 15 (emphasis added).

state level in this area. It is true, as the Commission has recognized, that "most states have not acted to produce an outright conflict between federal and state law that justifies Commission preemption[.]"[101/] But at least 18 states have started to take positions on the regulatory classification and treatment of specific VoIP services or are actively contemplating whether to do so. To name just a few recent examples, the New York Public Service Commission just determined that Vonage must be regulated as a "telephone corporation" under state law by virtue of its VoIP offering.[102/] And the California Public Utilities Commission tentatively found that VoIP is a public utility telecommunications service under state law and initiated an investigation into whether it should be regulated as such.[103/] These *ad hoc* proceedings threaten future

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101/ *Id.* at 3318-19 ¶ 18.

102/ *See* Order Establishing Balanced Regulatory Framework for Vonage Holdings Corp., *Complaint of Frontier Telephone of Rochester, Inc. Against Vonage Holdings Corporation Concerning Provision of Local Exchange and InterExchange Telephone Service in New York State in Violation of the Public Service Law*, Case No. 03-C-1285, at 9, 13 (N.Y. Pub. Serv. Comm'n May 21, 2004) (asserting state jurisdiction to regulate Vonage's VoIP service and finding that, even if the Commission were ultimately to classify that service as an "information service," the state could still regulate its intrastate aspects).

103/ *See* Order Instituting Investigation, *Order instituting investigation on the Commission's own motion to determine the extent to which the public utility telephone service known as Voice over Internet Protocol should be exempted from regulatory requirements*, at 3 (Cal. Pub. Utils. Comm'n Feb. 11, 2004). During the past year, Minnesota and Wisconsin also took steps to subject providers of such services to regulations applicable to traditional telephone companies. *See* Order Finding Jurisdiction and Requiring Compliance, *Complaint of the Minnesota Department of Commerce Against Vonage Holding Corp. Regarding Lack of Authority to Operate in Minnesota*, Docket No. P-6214/C-03-108 (Minn. Pub. Utils. Comm'n Sept. 11, 2003); *Wisconsin Decides VoIP Getting Too Big to Ignore*, Broadband Business Report (Sept. 23, 2003) (noting that the Wisconsin commission, without a hearing, sent a letter to at least three providers of VoIP directing them to comply with state regulations applicable to telecommunications carriers). Other states — including Alabama, Illinois, Michigan, Missouri, North Carolina, North Dakota, Ohio, Oregon, Virginia, and Washington — are investigating whether to take similar action, either on their own initiative or at the request of a specific party. *See* Alan Breznick, *States Weigh Regulating VoIP As Traditional Phone Service*, Cable Datacom News (Oct. 1, 2003); Peter Lewis, *Rules for Internet telephony challenge regulators; Is it telecommunications or information services?*, Seattle Times, at C1 (Oct. 13, 2003) (describing recent proceedings initiated in Washington state and Oregon); Order Establishing Case, *Study of* innovation and investment in IP-enabled services by raising the specter of 51 different schemes of common carrier regulation over a class of services that, until now, has always been understood to be unregulated. The Commission's longstanding guarantee of a regulation-free zone for the Internet has been an important stimulus for its explosive growth and transformative effects on the world economy. The Commission would threaten both that legacy and the enormous economic benefits of regulatory certainty if it suggested the potential for state common carrier regulation for IP-enabled services.

In sum, as in the *Pulver Declaratory Ruling*, the Commission should confirm that it "ha[s] the authority to act in this area if states promulgate regulations applicable to [an IP-enabled] service that are inconsistent with its current nonregulated status."[104/] While states may validly play a role in applying some forms of non-communications-specific regulation — for example, by exercising general authority under existing state consumer protection statutes — even that involvement should occur within a predominantly federal framework. The Commission should take the lead in setting the basic principles and rules, with the states' input.

Voice over Internet Protocol, Case No. TW-2004-0324, at 1, 3 (Mo. Pub. Serv. Comm'n Feb. 3, 2004) (opening case to further the state commission's knowledge of VoIP technology and to assist in its preparation of comments to be filed with the Commission); Gayle Kansagor, *VoIP Debate Moves to North Dakota*, Telecommunications Reports Daily (Dec. 8, 2003). Colorado, Pennsylvania, and Texas have suspended similar proceedings in light of the Commission's issuance of the *NPRM*. *See* Order Closing Docket, *Investigation Into Voice over Internet Protocol (VoIP) Services*, Docket No. 03M-220T, ¶ 3 (Colo. Pub. Utils. Comm'n Dec. 17, 2003); Motion of Commissioner Glen R. Thomas, *Investigation into Voice over Internet Protocol as a Jurisdictional Service*, Docket No. M-00031707, at 2 (Pa. Pub. Utils. Comm'n Apr. 15, 2004); Order Addressing Threshold Issues and Motion to Dismiss, *Arbitration of Non-Costing Issues for Successor Interconnection Agreements to the Texas 271 Agreement*, Docket No. 28821, at 7 (Tex. Pub. Utils. Comm'n Apr. 16, 2004).

104/ *Pulver Declaratory Ruling* at 3318-19 ¶ 18.

IV. CLASSIFYING IP-ENABLED SERVICES AS TITLE I INFORMATION SERVICES WOULD IN NO WAY DISTURB THE COMMISSION'S TITLE II NON-CARRIER-SPECIFIC AUTHORITY AND TITLE I ANCILLARY JURISDICTION TO ADDRESS IMPORTANT PUBLIC POLICY CONCERNS IMPLICATED BY SUCH SERVICES.

Despite the competitive nature of the market for IP-enabled services, the growing use of those services — especially as a next-generation replacement for existing legacy voice services — might still raise certain public policy concerns. For example, pressing concerns already have been raised concerning what compensation obligations providers of such services have when they use the PSTN to terminate or receive legacy telecommunications traffic and whether such providers have a right to use North American Numbering Plan ("NANP") resources. And as these services proliferate, they are presenting public policy challenges, such as the availability of emergency services, disabilities access, and universal service.

As important as these issues are, they are not a reason for the Commission to refrain from determining that IP-enabled services are Title I information services and thus exempt from Title II legacy common carrier regulation. Such a determination would not prevent the Commission from addressing these and other similar issues, because the Commission would retain a broad range of authority to meet the regulatory challenges that will attend the continued growth of IP-enabled services. *First,* the Commission's existing statutory authority over common carrier services will often suffice to address issues peculiar to the use of PSTN-based services in connection with IP-enabled services. *Second*, several provisions of Title II authorize the Commission to regulate non-common carrier services. The Commission may employ this so-called "Title II non-carrier-specific jurisdiction" to regulate many aspects of IP-enabled services regardless of how they are characterized. And *third*, the Commission may fill any remaining regulatory gaps with its Title I ancillary jurisdiction.

As discussed below, the Commission should actively exercise all such authority as necessary in the near term to craft appropriate rules to govern the intercarrier compensation obligations and numbering rules applicable to IP-enabled service providers. Other issues, like emergency services, may also merit the Commission's concern in the future. The Commission should clearly establish its jurisdiction in this arena, and its authority to implement rules if and as required. This is not to say, however, that the Commission should take action regarding these issues now. The Commission should be careful not to overregulate; where there is evidence that the industry already has begun to address public policy concerns, it may be sufficient for the Commission to monitor developments and support voluntary action.

A. The Commission's Existing Statutory Authority Over Common Carrier Services Is Sufficient to Reach Some Concerns Relating to IP-Enabled Services.

In some cases, the Commission's established statutory authority over common carrier services would plainly reach the most pressing issues that are raised by IP-enabled services, even once they are properly classified as information services. As a preliminary matter, for example, a finding that IP-enabled services are information services would leave undisturbed the Commission's Title II authority over underlying legacy common carrier facilities and services that are used today for PSTN-based telecommunications, even if those facilities and services can also be used for IP-enabled services. Preserving appropriate access to basic legacy facilities and services provides ample assurance that all providers will have an equal opportunity to offer facilities-based IP-enabled services, as they have had since the *Computer II* obligations were first put in place. The market for the IP-enabled technology that can be used in connection with the basic transmission services or facilities to which competitors would still have access is highly competitive.

The Commission's existing authority over common carriers also addresses other concerns that surround IP-enabled services, particularly the need to clarify the intercarrier compensation obligations that apply to IP-enabled services that send traffic to or receive traffic from the PSTN.[105/] The Commission has express authority under sections 201 and 251(g) of the Act to address the rates that LECs may charge and that other entities are obligated to pay for access to the PSTN. And such authority extends to the obligations of *any* entity that accesses the PSTN to send or receive interstate traffic, regardless of whether that carrier is a common carrier. For example, as discussed below, there is no question that the Commission's Title II authority over access charges authorizes the Commission to address the access charge obligations of information service providers. Thus, the Commission's existing Title II authority over legacy common carrier access services provide the Commission with all the authority it requires to address the pressing intercarrier compensation question presented by IP-enabled services.

B. The Commission's Title II Non-Carrier-Specific Jurisdiction Is Sufficient to Address Many Regulatory Concerns with Respect to IP-Enabled Services.

Several provisions in Title II empower the Commission to regulate certain elements of communications service regardless of how the provider is classified. This Title II non-carrier-specific jurisdiction relates to *non-common carrier* issues — that is, those unrelated to the terms and conditions on which a provider offers service to the public. The Commission's jurisdiction under these statutory provisions is not limited to providers of telecommunications services. This authority will in many cases be sufficient for the Commission to address key issues relating to IP-enabled services, notwithstanding their regulatory classification.

105/ See *infra* section VI.A.

For example, the Commission has long-established, exclusive statutory authority under section 251(e) over numbering resources. The Communications Act does not limit the assignment of numbers to providers of telecommunications services. The Commission can exercise its powers to preclude or permit the use of numbers by *any* type of provider, regardless of the provider's classification.[106] Indeed, section 251(e) contains no reference whatsoever to a carrier of any type, instead granting the Commission authority over the entity that the Commission creates or designates "to administer telecommunications numbering and to make such numbers available on an equitable basis."[107] This authority therefore gives the Commission all the power it needs to address how IP-based service providers, for example, should obtain and use numbering resources.

The same is true of universal service. Section 254 of the Act provides on its face that the Commission's express authority over universal service under section 254 is not limited to telecommunications service providers: "Any other provider of interstate telecommunications may be required to contribute to the preservation and advancement of universal service if the public interest so requires."[108] Thus, the statute empowers the Commission to craft new contribution requirements and to assess at least some types of IP-enabled service providers for contributions; this will allow the Commission to respond to the challenge of traffic migrating from the PSTN to the IP platform.[109]

The Commission's disability access authority under Title II likewise is not limited to common carriers. Specifically, section 255 requires that "manufacturer[s] of

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106/ *See infra* section VI.B.

107/ 47 U.S.C. § 251(e)(1).

108/ *Id.* § 254(d).

109/ *See infra* section VI.E.

telecommunications equipment or customer premises equipment . . . ensure that the equipment is designed, developed, and fabricated to be accessible to and usable by individuals with disabilities."[110] This, in fact, obligates the Commission to address disability access issues for the provision of the equipment underlying IP-enabled services, which obviously is not a common carrier activity.

C. The Commission Also Has Ancillary Jurisdiction to Address Any Relevant Policy Concerns That Are Not Entirely Within the Commission's Title II Jurisdiction Over Non-Common Carrier Services and Activities.

Finally, the Commission has ancillary jurisdiction to fill in any gaps in its statutory authority and to address any remaining public policy issues raised by IP-enabled services, especially those that interconnect with the PSTN and are designed to replace, complement, or improve on legacy services. The Commission has broad authority to "perform any and all acts, make such rules and regulations, and issue such orders not inconsistent with [the] Act, as may be necessary in the execution of its functions."[111] And as the courts and the Commission have long recognized, the Commission's functions are not limited to those specified in the substantive Titles of the Act (II, III, and VI), but include the general duty under Title I of the Act to "make available, so far as possible . . . a rapid, efficient, Nationwide, and world-wide wire and radio communication service with adequate facilities at reasonable charges."[112] The Commission thus has jurisdiction under the "general jurisdictional grant in Title I of the Communications Act" to adopt rules and regulations that are not clearly required under Titles II-VI, so long as the

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110/ 47 U.S.C. § 255(b).

111/ *Id.* § 154(i).

112/ *Id.* § 151.

"assertion of jurisdiction is 'reasonably ancillary to the effective performance of the Commission's various responsibilities.'"[113]

The Commission has ancillary jurisdiction to address the public policy concerns surrounding the increasing deployment of IP-enabled services. First, the Commission has regularly found that information services are "communications by wire or radio" and thus "are subject to our jurisdiction under Title I of the Communications Act."[114] As IP-enabled services and platforms proliferate and increasingly replace and draw traffic from legacy services and the PSTN, they will become a critical link in "Nationwide . . . communications," and they also will have a direct effect on the quality and sustainability of the PSTN. The Commission's ancillary jurisdiction will allow its regulations to keep pace with this change and ensure the Commission's continuing ability to promote the policy goals of the Communications Act.[115]

Indeed, the Commission has a long history of using its ancillary authority to regulate new services that slip between the cracks of the Act's substantive Titles yet compete with and replace

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113/ Report and Order and Further Notice of Proposed Rulemaking, *Digital Broadcast Content Protection*, 18 FCC Rcd 23550, 23563 ¶ 29 (2003) ("*Digital Broadcast Content Order*") (quoting *Southwestern Cable*, 392 U.S. at 178) (footnote omitted).

114/ *See, e.g.*, Report and Order and Further Notice of Inquiry, *Implementation of Section 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996*, 16 FCC Rcd 6417, 6455-62 ¶¶ 93-108 (1999) ("*Disability Access Order*") (using ancillary authority to regulate providers of voicemail and interactive menu services); *Computer & Communications Indus. Ass'n*, 693 F.2d 198 (upholding Commission's assertion of ancillary jurisdiction over enhanced services); *see also* Memorandum Opinion and Order, *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee*, 16 FCC Rcd 6547, 6610 ¶ 148 (2001) (concluding that IM services are communications by wire and/or radio and thus that "new IM-based services . . . are subject to our jurisdiction under Title I of the Communications Act"); 47 U.S.C. § 152(a); *id.* § 151 (defining purpose of the Communications Act to "make available, so far as possible . . . a rapid, efficient, Nationwide, and world-wide wire and radio communication service with adequate facilities at reasonable charges").

115/ *See Southwestern Cable*, 392 U.S. at 178; *United States v. Midwest Video Corp.*, 406 U.S. 649 (1972) ("*Midwest Video I*").

existing services already regulated under one of those Titles. Over thirty years ago, the Commission exercised its general Title I authority to regulate the relatively new cable industry, even though the Act did not explicitly give the Commission authority to do so. In *United States v. Southwestern Cable Co.*, the Supreme Court affirmed this assertion of jurisdiction, holding that the Commission's broad duty to develop a national system for local television broadcasting, coupled with its authority over "all interstate . . . communication by wire or radio," permitted its regulation of cable systems.[116/] The Court recognized that cable systems were increasingly used to import distant programming, rather than simply to extend the range of local antennae.[117/] In other words, cable services would substitute for, rather than merely enhance, local programming, just as IP-enabled services now promise to replace and draw traffic from the PSTN. The Court found reasonable the Commission's conclusion that cable programming could damage local stations, possibly to the point that the benefits of a local broadcasting system would be lost altogether.[118/] The Commission similarly feared that by "dividing the available audiences and revenues," cable service would exacerbate financial difficulties faced by UHF and educational television.[119/] Based on these conclusions, the Court agreed that "the Commission cannot discharge its overall responsibilities without authority over this important aspect of television service."[120/]

116/ *Southwestern Cable*, 392 U.S. at 178.

117/ *Id.* at 163.

118/ *Id.* at 175.

119/ *Id.* at 176.

120/ *Id.* at 177 (quotation and citation omitted); *see also FCC v. Midwest Video Corp.*, 440 U.S. 689, 706-07 (1979) ("*Midwest Video II*") ("[In *Southwestern Cable*] regulation was imperative to prevent interference with the Commission's work in the broadcasting area."); *GTE Serv. Corp. v. FCC*, 474 F.2d 724, 734 (2d Cir. 1973) ("[In *Southwestern Cable*] the authority of the FCC . . . was based on the need to control the growth of community antenna systems in order

The Commission's ancillary jurisdiction is also a recognized tool for the Commission to affirmatively promote the goals of the Act when confronted by new services that do not fall squarely within the Act's existing provisions. The Supreme Court recognized this aspect of the Commission's authority when it upheld further regulations of the cable industry in *United States v. Midwest Video Corporation*.[121/] The Court "agree[d] with the Commission that its concern with CATV carriage of broadcast signals is not just a matter of avoidance of adverse effects, but extends also to requiring CATV affirmatively to further statutory policies."[122/] Indeed, there is no stopping point between promoting statutory policies and preventing adverse effects, for "the avoidance of adverse effects is itself the furtherance of statutory policies."[123/] Several years later, the Court reaffirmed this core holding.[124/]

The courts have upheld the Commission's exercise of its Title I authority in several additional contexts where regulation of new services that fall outside of one of the Act's substantive Titles has been deemed a necessary component of the Commission's oversight of

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that the Commission might accomplish its broad responsibility of orderly development of an appropriate system of local television broadcasting.").

[121/] These regulations prohibited cable systems having 3,500 or more subscribers from carrying broadcast station signals unless they also operated as a local outlet by cablecasting and had facilities available for local production and presentation of programming. *See Midwest Video I*, 406 U.S. at 653.

[122/] *Id.* at 664 (quotation omitted) (plurality opinion); *see also id.* at 667 ("In short, the regulatory authority asserted by the Commission in 1966 and generally sustained by this Court in *Southwestern* was authority to regulate CATV with a view not merely to protect but to promote the objectives for which the Commission has been assigned jurisdiction over broadcasting."); *id.* at 675-76 (Burger, C.J., concurring in the judgment).

[123/] *Id.*

[124/] *Midwest Video II*, 440 U.S. at 700 ("Our holding in *Midwest Video* sustained the Commission's authority to regulate cable television with a purpose affirmatively to promote goals pursued in the regulation of television broadcasting . . . .").

services or principles within those Titles.[125/] As the courts have noted, "Congress sought 'to endow the Commission with sufficiently elastic powers such that it could readily accommodate dynamic new developments in the field of communications.'"[126/] Likewise, the Commission has repeatedly recognized its authority to use its ancillary jurisdiction to promote the goals served by the Communications Act.[127/] And the Commission has specifically exercised those "elastic powers" to regulate information services where it has found that doing so is ancillary to its duty to advance the public interest in the provision of telecommunications services under Title II.[128/]

By contrast, in the isolated circumstances in which courts have *invalidated* the Commission's invocation of its Title I authority, they have done so primarily because the Commission had exercised that authority to adopt rules that were in significant *tension* with substantive principles embodied in the Communications Act or in the First Amendment.[129/] But

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125/ *See, e.g.*, *Computer & Communications Indus. Ass'n*, 693 F.2d at 213 (upholding Commission's conclusion that regulation of enhanced services was necessary to prevent AT&T from burdening customers of regulated service with costs of competitive services); *GTE Serv. Corp.*, 474 F.2d at 731 (approving ancillary jurisdiction over common carrier's entry into computer services market because it is an area "intimately related to the communications industry . . . where such activities may substantially affect the efficient provision of reasonably priced communications service").

126/ *Computer & Communications Indus. Ass'n*, 693 F.2d at 213 (quoting *General Tel. Co. of the Southwest v. United States*, 449 F.2d 846, 853 (5th Cir. 1971)).

127/ *Digital Broadcast Content Order* at 23565 ¶ 31 ("Here, the record shows that creation of a redistribution control protection system . . . is essential for the Commission to fulfill its responsibilities under the Communications Act and achieve long-established regulatory goals in the field of television broadcasting.").

128/ *Disability Access Order* at 6455 ¶ 93 ("[I]n order for us to carry out meaningfully the accessibility requirements of section 255, requirements comparable to those under section 255 should apply to two information services that are critical to making telecommunications accessible and usable by people with disabilities.")); *Computer & Communications Indus. Ass'n*, 693 F.2d at 213 (upholding authority to regulate enhanced services).

129/ *See Midwest Video II*, 440 U.S. at 700-09 (invalidating FCC attempt to impose on cable companies under Title I the type of common carrier regulation that the Act would prohibit if the regulated parties had been broadcasters rather than cable companies); *Motion Picture Ass'n of* this inherent limitation makes the Commission's ancillary jurisdiction an especially appropriate tool for regulating IP-enabled services. The Internet owes much of its robust growth to the Commission's light regulatory touch to date. By restricting its interventions in the field of IP-enabled services to those necessary to implement express statutory policies, the Commission will help fulfill Congress's policy of "preserv[ing] the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation" while retaining the flexibility to act when necessary.[130]

Here, the Commission's assertion of jurisdiction to address the public policy concerns surrounding IP-enabled services would not remotely thwart, and is indeed necessary to promote, the substantive policy goals of the Communications Act. For example, Congress has specifically endorsed the Commission's intervention in the market to protect access to emergency communications services (911),[131] and to ensure that service is accessible to people with disabilities.[132] Thus, any exercise of Commission authority under Title I to discharge these and other similar functions with respect to information service providers (or at least a subset of such providers, as SBC explains below) would be directly ancillary to the express statutory authority already afforded by Congress in other substantive provisions of the Act. So long as the Commission acts in direct furtherance of promoting or protecting the goals that Congress set forth in these provisions, the Commission's exercise of its Title I authority would be reasonably ancillary to fulfilling its statutory responsibilities.

Am. v. FCC, 309 F.3d 796 (D.C. Cir. 2002) (invalidating FCC invocation of Title I to impose constitutionally problematic "video description" rules).

130/ 47 U.S.C. § 230(b)(2).

131/ *Id.* § 615.

132/ *Id.* § 255.

V. TO THE EXTENT THE COMMISSION DETERMINES THAT SOME REGULATION OF IP-ENABLED SERVICES IS WARRANTED, IT SHOULD LIMIT THAT REGULATION, AT LEAST INITIALLY, TO THOSE IP-ENABLED SERVICES THAT CONNECT WITH THE PSTN.

Even if the Commission determines that some regulation is in order to address certain policy concerns, it would not make sense simply to apply such regulations to all IP-enabled services across the board. IP-enabled services do not all raise the same public policy concerns, and, as the Commission has recognized, "any regulations [should be] applied to such services" only in "those cases in which they are appropriate."[133/] It therefore makes sense, as the Commission notes, to "differentiate among various IP-enabled services," so that only those services that actually implicate the relevant policy issues are subject to regulation. Such an approach will ensure that, as Congress mandated, IP-enabled services "remain [otherwise] unregulated."[134/] And it will also ensure that the Commission's ancillary authority, where exercised, is applied in a narrowly-tailored manner to serve valid public interest goals under the Communications Act.

Whether an IP-enabled service interconnects with the PSTN should be the minimum, "gating" criterion (at least for the foreseeable future) for determining whether a service should be subject to regulations that address public policy concerns. Such "interconnected" services are part of the seamless and ubiquitous communications network that allows all citizens of this country to communicate with one another (and across the globe). As such, they are most likely to raise issues similar to those raised by legacy circuit-switched services, which make up the bulk of that communications network today. And the Commission's authority to regulate is at its apex where IP-enabled services interconnect with the PSTN because Congress has directly authorized

133/ *NPRM* ¶ 35.

134/ *Id.*

the Commission under both Titles I and II to protect the reliability, affordability, and accessibility of this country's communications network, and to ensure that the network is available as a tool for safeguarding life and property.[135]

IP-enabled services that are not connected to the PSTN, however, are not designed to operate as part of the nation's primary, open communications network. Such "closed" services allow communications only among a specific subset of users. Subscribers who opt for such services recognize that they are "off" the country's primary, interconnected communications network. "Closed" IP-enabled services do not, and are not designed to, meet all of a typical subscriber's communications needs. Indeed, in some cases — *e.g.*, Microsoft's X-Box Live — the IP-enabled service may allow "communications" among subscribers only for limited purposes, as an adjunct to something else — *e.g.*, playing video games. Subscribers' expectations with respect to such "closed" and defined services would be very different from those of an end user on the PSTN or a subscriber to a VOIP service connected with the PSTN, both of whom expect to be able to communicate with anyone, for any reason. The public policy issues — if any — associated with such "closed" services, and the Commission's interest in regulating them (and authority to do so), generally would be extremely limited. If the landscape shifts in the future, and other types of services become more ubiquitous and are used to satisfy consumers' basic communications needs in connection with or as a replacement for PSTN-based communications, the Commission can and should revisit these concerns as they apply to such services.

PSTN-connectedness therefore should be a necessary criterion for the application of any Commission public policy-based regulations. But it may not be a sufficient criterion in all cases.

135/ *See, e.g.*, 47 U.S.C. §§ 151, 254, 255.

The Commission should adopt additional criteria where necessary to tailor the regulatory requirement narrowly to the services that trigger the concern. For example, not all IP-enabled services that interconnect with the PSTN may present similar emergency calling concerns. It is most important to ensure that IP-enabled services that are used for *voice* applications offer 911 calling capabilities; this concern would not be present with a data-only service, even if connected to the PSTN. As the Commission has recognized in another context, consumers are likely to have an expectation that a communications service will serve as an emergency calling tool if it not only is interconnected with the PSTN, but also offers "real-time, two-way voice service."[136/] The Commission should therefore adopt "voice capabilities" as an additional criterion for the application of any emergency calling related rules. In other cases — *e.g.*, the application of any numbering or number portability rules — the use of NANP numbers would be an appropriate necessary criterion.[137/]

Using the PSTN interconnection criterion as an initial cut-off for whether a service might be regulated offers a bright-line, easily implemented test that sidesteps the quagmire that would result from the use of the alternative criteria suggested in the *NPRM*. For example, functional equivalence or substitutability, two tests mentioned by the *NPRM*, are overly subjective and could be over- or underinclusive. Whether a particular VOIP service is "functionally equivalent" to or substitutable for traditional voice service, for example, is not a straightforward question. Most VoIP services offer far *more* functionality than traditional voice. On the other hand, some VoIP services provide voice, yet are not useful for calling all other voice customers, as in the

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136/ Memorandum Opinion and Order, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 18 FCC Rcd 25340, 25347 ¶¶ 18-19 (2003) ("*E911 Scope Order*").

137/ *See infra* section VI for a full discussion of the appropriate criteria.

case of Pulver's service. Whether the services are "equivalent" or "substitutable" therefore requires additional definition of what the relevant criteria will be; otherwise, the test will be: "I know it when I see it." The PSTN-connectivity test is a far more objective approach.

Further, basing any regulation on the simple (initial) test of whether a service interconnects with the PSTN presents an appropriate alternative to determining whether to regulate IP services, functionalities, or facilities based on "layers" — physical (or "facility"), logical (or "protocol"), applications, and content.[138/] The layered model is, at bottom, an engineering concept that does not readily translate into a regulatory paradigm for the IP world. There is no consensus about how to define the "layers" of Internet-related communications for regulatory purposes or, for that matter, even for engineering purposes. For example, information theorists have often described the layered structure of data communications using the Open Systems Interconnection ("OSI") model, which identifies seven layers of functionality, while network engineers routinely depart from the specifics of that model.[139/] And there is likewise no consensus about how to characterize certain services or facilities, such as ATM switching, within any chosen layering hierarchy. Finally, no matter what layering model might be chosen, the layers themselves fluctuate over time: for example, new generations of IP functionality can be said to occupy both the first and second layers of the traditional layered model.[140/] All of these uncertainties could be expected to give rise to an unstable and contentious regulatory regime.

138/ *NPRM* ¶ 37.

139/ *See, e.g.*, Joshua L. Mindel, *Refinements of a Layered Model for Telecommunications Policy*, 1 J. Telecomm. & High Tech. L. 69, 71 (2002) (stating that the layered approach "can be plagued by numerous shortcomings).

140/ *See, e.g.*, George Gilder, *Testimony for Telecommunications Policy: A Look Ahead* (Senate Committee Hearing Apr. 28, 2004) (describing an "all-optical network" in which fixed wavelengths of light "can function as both the physical and logical layers," because the intelligence that routes the message "is embedded in the path" itself).

Moreover, as MCI's white paper reveals,[141] proponents of a layering approach often begin with the obsolete presumption that legacy incumbent providers have market power on the physical transmission layer and must demonstrate a basis to avoid regulation that otherwise would automatically apply. That presumption is flatly wrong, as SBC discusses below, and SBC's approach is far more likely to help the Commission address the IP environment through first principles, undistorted by yesterday's regulatory and market realities.

Even if the Commission ultimately were to choose a layered model, the end result ultimately should be the same. There is no basis for regulation of any entity's IP services or IP networks because no provider is dominant at any layer. Thus, wireline carriers should be subject to no special regulation in the IP sphere, notwithstanding MCI's suggestion to the contrary.[142] While MCI has advanced the mistaken premise that wireline broadband providers are dominant at the physical layer, cable operators are in fact the leading providers of residential and small business broadband service and control approximately *two-thirds* of all high-speed lines provided to mass-market customers.[143] And the availability and use of alternative broadband technologies — such as 3G mobile wireless, fixed wireless, BPL, and satellite — is steadily

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141/ *See* Richard S. Whitt, "A Horizontal Leap Forward: Formulating A New Public Policy Framework Based On the Network Layers Model" (MCI Public Policy Paper Mar. 2004).

142/ *See id.*

143/ *See* VoIP Fact Report at A-1 (stating that cable companies control "more than *two-thirds* of all high-speed lines provided to residential and small-business customers" and "more than *83 percent* of the most rapidly growing segment of mass-market broadband lines"); K. Burney, In-Stat/MDR, *The Data Nation: Wireline Data Services Spending and Broadband Usage in the US Business Market; Part Three: Small Businesses (5 to 99 Employees)* (Dec. 2003); *see also United States Telecom Ass'n v. FCC*, 290 F.3d 415, 428-29 (2002) ("*USTA I*") (invalidating line-sharing mandate in light of "the robust competition, and the dominance of cable, in the broadband market"); *USTA II*, 359 F.3d at 585 (upholding elimination of broadband unbundling obligations because (inter alia) "intermodal competition from cable ensures the persistence of substantial competition in broadband").

increasing.[144/] Likewise, traditional interexchange carriers such as AT&T and MCI control an overwhelming share of the enterprise business market.[145/] Their advocacy for disproportionately heavy regulation of ILECs should be seen for what it is: self-interested protectionism. Nor, of course, are wireline providers dominant at any applications layer. To the contrary, as discussed in SBC's pending petitions, the market for IP-enabled services is subject to open and robust competition at all layers.[146/] Thus, properly understood, the layered model actually cuts strongly in favor of *unregulation* of wireline providers — and certainly of less regulation for them than for the cable and other providers that currently lead the field in their respective markets.

VI. THE COMMISSION SHOULD PROMPTLY ADDRESS INTERCARRIER COMPENSATION AND NUMBERING ISSUES AND THEN ADDRESS OTHER IMPORTANT POLICY CONCERNS RAISED BY IP-ENABLED SERVICES.

As noted above, IP-enabled services raise certain legitimate, and in some cases pressing, public policy concerns. The Commission has clear authority to address those issues by applying or crafting appropriate rules to the extent necessary. In some cases, it should exercise that authority; in others, it should simply affirm that it has the authority to apply or craft such rules in the future should the need arise.

144/ *See* VoIP Fact Report at A-8 ("The Commission has already recognized that, in addition to cable and DSL, there are numerous additional platforms and technologies already competing in or poised to enter the broadband mass market, including power lines, fixed wireless, 3G mobile wireless, and satellite."); *see generally id.* A-8 to A-19 (describing broadband offerings by alternative technologies).

145/ *See id.* at A-19 (describing a report showing "that it is AT&T and the other large interexchange carriers — not the ILECs — that dominate" the market for large business customers); *id.* at 28 ("Competing carriers lead in the provision of IP-based services to enterprise customers, just as they do in the provision of old packet-switched services like ATM and Frame Relay.").

146/ *See* SBC Declaratory Ruling Petition at 11-14.

As discussed below, the most pressing substantive concerns that arise in connection with IP-enabled services (in addition to the jurisdiction and classification issues discussed above) are (1) the uncertainty concerning the intercarrier compensation obligations of IP-enabled service providers that send traffic onto or receive traffic from the PSTN, and (2) the extent to which IP-enabled service providers should be entitled to make use of NANP numbering resources, and what rules should apply if they do. Proper and timely resolution of these two issues is essential to creating an equitable and rational framework for efficient investment in, and removing barriers to the further deployment of, IP-enabled services. Intercarrier compensation as it applies to IP-enabled services is currently fraught with uncertainty, which some providers have exploited as an opportunity for regulatory arbitrage. The confusion is destabilizing and discourages efficient investment, and the Commission therefore should swiftly pronounce that — until the agency adopts a unified intercarrier compensation regime — IP-enabled service providers must pay interstate access charges when they send traffic to or receive traffic from the PSTN. At the same time, the Commission's numbering rules, which restrict VoIP providers' direct access to numbering resources, are unnecessarily limiting technological and service innovation without any countervailing benefit. The Commission should modify its rules to permit VoIP providers (and other IP-enabled service providers) direct access to numbering resources as long as they meet criteria demonstrating their intent to provide service.

The Commission should act on these two imperative issues immediately, preferably by the end of this year; because these issues are discrete, it need not await resolution of all other public policy issues that are before it to decide these issues. Nonetheless, these other public policy issues also deserve the Commission's prompt attention. One of the more pressing of these areas is public safety as it relates to the emergency calling capabilities of IP-enabled services.

As discussed, the industry has made substantial progress on its own in this area. But because ensuring basic emergency access is imperative for safeguarding life and property, Commission leadership and involvement in this area, at least in helping to establish national standards, is warranted. The Commission also should address disability access for IP-enabled services to ensure that access is incorporated early in the development stage of this new technology before new barriers are inadvertently created.

Proliferation of IP-enabled services also requires a new approach to universal service. *First*, the Commission should revisit its universal service contribution requirements and affirm that it has authority to require support from IP-enabled services providers; otherwise, as traffic migrates off the PSTN, the universal service burden on legacy service providers and their customers will increase significantly. *Second*, the Commission should confirm that, while IP-enabled services are not (and should not) be supported today, the Commission has the authority to provide support for these services at some point in the future if and when it determines such support is warranted under the Act. *Finally*, it is conceivable, although not likely, that the spread of IP-enabled services may require minimal, targeted Commission oversight to ensure that certain consumer protections not covered by general consumer protections statutes are addressed. But on the whole, the market for such services is sufficiently robust as to make such regulation unnecessary.

A. The Commission Should Promptly Clarify the Intercarrier Compensation Obligations Applicable to IP-Enabled Services that Make Use of the PSTN.

One of the most destabilizing trends in the modern communications industry is escalating uncertainty about the ground rules for how the Internet and IP-enabled services affect intercarrier compensation. Several years ago, profound regulatory doubt about the compensation issues related to ISP-bound dial-up traffic led to massive industry dislocations as regulation-driven arbitrage opportunities arose and were then belatedly corrected. And that same uncertainty threatens to resurface today on a much larger scale unless the Commission addresses the intersection of IP-enabled services with the traditional access charge regime in a critical set of circumstances: where providers of IP-enabled services make use of the PSTN not to reach their own subscribers, but to reach third parties that are not their customers and with whom they have no contractual relationship, such as PSTN end users at the terminating end of a VoIP call.

The consequences of such uncertainty are unfortunate. The surest way to depress investment in any industry is to sow confusion about what the ground rules are for competition and everyday operations.[147] And the surest way to distort the competitive trajectory of any industry is to permit arbitrary inconsistencies in those rules to create arbitrage opportunities that allow inefficient competition to flourish. Such uncertainty and arbitrage will be this Commission's legacy unless it acts now to reject proposals by many VoIP providers to carve out a new, arbitrary exception to the access charge regime. Specifically, those providers seek immunity from an obligation to pay access charges for traffic they hand off to the PSTN, even though a PSTN subscriber receiving a call placed by a VoIP subscriber is not receiving an information service, but simply a basic telephone call over the PSTN. In the long term, the Commission should resolve the controversy about this issue by adopting a unified scheme of intercarrier compensation for the industry as a whole. In the short term, however, particularly given the central role that access charges now play in keeping end user rates affordable and compensating for carriers' actual costs, the Commission should reaffirm that such providers owe

147/ Indeed, Congress has specifically directed the Commission to "remove barriers to infrastructure investment" for advanced services. 47 U.S.C. § 157(a) note.

access charges for traffic terminated on the PSTN, regardless of whether the service they provide to their own customers in IP format is classified as an information service.

As an initial matter, this result is already required by the Commission's existing rules, under which any providers that use ILEC local exchange switching facilities, including information service providers, are subject to the baseline obligation to pay access charges unless specifically exempted. The sole exemption the Commission has created is a narrow one that exempts an information service provider from access charges only with respect to the connection between it and its own customer. The Commission accordingly should enforce the access charge obligation where IP-enabled services originate or terminate on the PSTN in the same manner as they do with respect to traditional telecommunications services, unless or until the Commission adopts a unified regime for intercarrier compensation generally. By applying its access charge rules in a uniform and competitively neutral manner to *all* users of local switching facilities, the Commission will achieve its stated goal of ensuring that the costs of the PSTN are paid for by all that use it,[148/] while eliminating opportunities for regulatory arbitrage and preserving a critical component of ILECs' ability to provide communications services at affordable rates.[149/]

148/ *See NPRM* ¶ 33 ("As a policy matter, we believe that any service provider that sends traffic to the PSTN should be subject to similar compensation obligations, irrespective of whether the traffic originates on the PSTN, on an IP network, or on a cable network. We maintain that the cost of the PSTN should be borne equitably among those that use it in similar ways.").

149/ SBC previously presented many of these arguments in its opposition to Level 3's petition for forbearance from the application of access charges to certain VoIP services. *See* Opposition of SBC Communications Inc., *Level 3 Communications LLC Petition for Forbearance Under 47 U.S.C. § 160(c) from Enforcement of 47 U.S.C. § 251(g), Rule 51.701(b)(1), and Rule 69.5(b)*, Docket No. 03-266, at 9-18 (filed Mar. 1, 2004) ("SBC Opposition to Level 3 Forbearance Petition"). SBC incorporates those arguments by reference, and restates them here for purposes of ensuring a complete record in this proceeding.

1. The Commission Should Enforce Its Existing Access Charge Rules For Traffic That Originates or Terminates on the PSTN.

Providers of IP-enabled services that originate and terminate traffic on the PSTN have always been considered users of access services and are subject to the baseline requirement to pay access charges, except to the precise extent to which the Commission has specifically exempted them from that requirement in defined circumstances.[150] As discussed below, while the ESP exemption applies when information service providers use the PSTN to connect with their own subscribers, it has never been extended to a situation in which information service providers use the PSTN to connect with third parties to whom they are not providing an information service. Finally, as further explained below, the 1996 Act preserved that obligation by grandfathering the Commission's existing access charge rules in section 251(g).

The Commission's access charge obligation applies broadly to all users of access services, not just interexchange carriers — and even the latter category is defined broadly to encompass an array of access customers.[151] As the Commission observed long ago, information service providers — then referred to as "enhanced service providers" — are "[a]mong the variety of users of access service," which also includes facilities-based carriers, resellers, sharers, privately owned systems, and others.[152] As such, they "obtain[] local exchange services or

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[150] Although the Commission states that it does not intend to address "whether charges apply or do not apply under existing law," it asks for comment concerning the authority under which it can require providers of IP-enabled services to pay access charges. *NPRM* ¶ 61. As explained herein, the Commission's existing access charge rules provide that authority.

[151] *See, e.g.*, 47 C.F.R. § 69.5(b); Memorandum Opinion and Order, *Investigation of Access and Divestiture Related Tariffs*, 97 F.C.C.2d 1082, 1182 (1984) (defining interexchange carrier as "*any* individual, partnership, association, joint-stock company, trust, governmental entity or corporation engaged for hire in interstate or foreign communication by wire or radio, between two or more exchanges").

[152] Memorandum Opinion and Order, *Petitions for Reconsideration of MTS and WATS Market Structure*, 97 F.C.C.2d 682, 711-12 ¶ 78 (1983) ("*MTS/WATS Market Structure Order*").

facilities which are used, in part or in whole, for the purpose of completing interstate calls which transit [the ISP's] location," which the information service provider then "connects . . . to another service or facility over which the call is carried out of state."[153/] For that reason, the Commission stated at the time it created the access charge regime that its "intent was to apply these carrier's carrier charges to interexchange carriers, and to all resellers and *enhanced services providers*."[154/] The Commission subsequently reiterated that it "initially intended to impose interstate access charges on enhanced service providers for their use of local exchange facilities to originate and terminate their interstate offerings."[155/]

Instead, however, the Commission devised its "ESP exemption." Specifically, the Commission exempted information service providers from paying access charges on the connections to their subscribers and permitted them to obtain the access services necessary to receive their *subscribers'* traffic through "end user" lines ordered under LECs' local business tariffs, subject to an additional surcharge designed to substitute, to some extent, for the direct payment of access charges.[156/] This arrangement did not convert information service providers

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153/ *Id.*

154/ *Id.* at 711 ¶ 76(emphasis added).

155/ Notice of Proposed Rulemaking, *Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, 2 FCC Rcd 4305, 4305 ¶ 2 (1987).

156/ *MTS/WATS Market Structure Order* at 711-15 ¶¶ 77-83; Memorandum Opinion and Order, *Filing and Review of Open Network Architecture Plans*, 4 FCC Rcd 1, 167-68 ¶ 318 (1988).

from being "[a]mong the variety of users of access service"[157] into true "end users;" rather, they were merely treated as end users "for pricing purposes."[158]

Further, the history and application of the ESP exemption make clear that the exemption was never intended to be a blanket waiver of *all* access charges in connection with any use of ILEC local exchange switching facilities in which the information service provider may engage. The ESP exemption was designed specifically and exclusively to exempt traffic between an information service provider and its customers, a policy reflecting the fact that, when the exemption was adopted in 1983, the Commission was seeking to spare fledgling enhanced services providers from having to bear what were then significant entry costs.[159]

But the Commission never suggested that the exemption would extend to traffic sent by an information service provider to a customer on the PSTN that is not its own customer (for example, a party called by the ISP's customer).[160] With respect to such traffic, the PSTN end user is not the customer of the ISP and is certainly not receiving an information service; when the call originates or terminates on the PSTN, it looks to the PSTN subscriber precisely like any other PSTN-based call. On that PSTN leg of the call, then, the information service provider

157/ *MTS/WATS Market Structure Order* at 711-12 ¶ 78.

158/ Declaratory Ruling and Notice of Proposed Rulemaking, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 14 FCC Rcd 3689, 3701 ¶ 17 (1999) ("*ISP Intercarrier Compensation Order*").

159/ *MTS/WATS Market Structure Order* at 711-15 ¶¶ 77-83.

160/ In fact, prior to the advent of the IP-enabled services addressed in this proceeding, the Commission had no reason even to consider the application of access charges to information services traffic that terminated on the PSTN, since information service providers historically used the PSTN only to send or receive calls from subscribers seeking access to their information service. *See, e.g.*, *1997 Access Charge Reform Order* at 16132-33 ¶ 343 (stating that the ESP exemption applies to information service providers when they "use incumbent LEC networks *to receive calls from their customers*") (emphasis added).

should have the same obligation to pay access charges as any other user of an ILEC's local switching facilities.

Indeed, even AT&T, a large payor of access charges and a staunch advocate for overbroad interpretations of the ESP exemption, was forced to acknowledge the limits of the ESP exemption in a recent *ex parte* filed with the Commission: "[T]he Commission has squarely rejected the claim that 'enhanced service providers' are categorically exempt from interstate access charges even when they offer telecommunications services; rather, it has held that the exemption applies to any entity (whether 'traditional IXC' or 'enhanced service provider') that provides enhanced services (but only to the extent that it is providing such services)."[161/] In this context, IP-to-PSTN VoIP providers cannot avoid access charges on the PSTN end of an interexchange call, where the PSTN subscriber participates by means of a telecommunications service, simply because they provide their end users on the IP end with an "enhanced" (information) service.[162/]

The Commission has never deviated from its view that information service providers are users of access services. And it certainly has not suggested that the scope of the access charge obligation has changed since its inception. To the contrary, section 251(g), added by the 1996 Act, expressly provides that "exchange access, information access, and exchange services for such access" would be provided "to interexchange carriers and information service providers" in the same manner as they had been prior to the Act's passage, "including receipt of

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161/ Letter from D. Lawson, Counsel for AT&T, to M. Dortch, CC Docket No. 02-361, at 3 (Apr. 13, 2004).

162/ We use the term "IP-PSTN" to collectively describe traffic that originates in IP and terminates on the PSTN as well as traffic that originates on the PSTN and terminates in IP, unless otherwise noted.

compensation."[163] Because providers of IP-enabled services are users of access services to the extent they rely on the PSTN for the origination or termination of traffic, as opposed to using it merely to enable their own customers to access an information service, they are subject to the baseline obligation to pay access charges on any portion of a call that originates with or terminates to an end user on the PSTN that is not the customer of that particular provider — unless and until the Commission modifies its access charge rules.

The D.C. Circuit's decision in *WorldCom, Inc. v. FCC* does not require a different result.[164] There, the D.C. Circuit held that section 251(g) did not exempt ISP-bound traffic from section 251(b)(5) because it found that there were no rules governing the intercarrier compensation for that traffic when the 1996 Act was enacted. But there clearly *were* rules governing the payment of access charges for PSTN-originated and PSTN-terminated traffic.[165] Indeed, those rules have been in place since 1983. Thus, the status quo under the Commission's existing rules is that access charges apply to IP-PSTN services, unless an exception applies or until the Commission changes those rules in the future.

This conclusion is consistent with the logic in the Commission's recent *AT&T Access Charge Order*.[166] As the Commission stated in that decision, "[W]e see no benefit in promoting one party's use of a specific technology to engage in arbitrage at the cost of what other parties are entitled to under the statute and our rules, particularly where, based on the record before us, end users have received no benefit in terms of additional functionality or reduced prices."[167]

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[163] 47 U.S.C. § 251(g).

[164] *WorldCom, Inc. v. FCC*, 288 F.3d 429 (D.C. Cir. 2002).

[165] *See* 47 C.F.R. § 69.5(b).

[166] *See AT&T Access Charge Order* ¶ 1.

[167] *Id.* ¶ 17.

Rather, the Commission properly recognized that such a service should be subject to access charges to eliminate opportunities for regulatory arbitrage. The Commission explained, "[E]xempting from interstate access charges a service such as AT&T's that provides no enhanced functionality would create artificial incentives for carriers to convert to IP networks."[168/] The same is true for genuine IP-enabled services, which likewise offer no enhanced functionality to a party on the PSTN (*e.g.*, a LEC's customer) who calls or is called by the customer of an IP-enabled service provider. In such cases, the LEC's customer is not receiving anything other than ordinary voice telephone service. While the provider of the IP-enabled service may pick up (or drop off) the call over a broadband connection and provide some enhanced functionality to *its* customer, the LEC customer obtains nothing other than a standard telephone call, which uses standard CPE, a standard NANP telephone number, and experiences no change in form or content.[169/] In short, providers of IP-enabled services should pay for their access to, and use of, the PSTN, just as any other service provider is required to do.[170/]

A VoIP provider cannot invoke the ESP exemption to avoid that obligation because the customer originating or receiving the call on the PSTN is *not* a customer of the VoIP provider. Hence the ESP exemption does not apply. Nor would it matter whether a CLEC or an IXC stands between the VoIP provider and the LEC that originates or terminates the call over the PSTN. The VoIP provider is using the PSTN facilities of the originating or terminating LEC and must pay for that use. Indeed, for access charge purposes, this situation is no different from traditional scenarios in which a long distance carrier purchases the services of a competitive

168/ *Id.* ¶ 18.

169/ *Report to Congress* at 11541-44 ¶¶ 84-89.

170/ *NPRM* ¶ 33.

access provider or other CLEC for some portion of the link between its network and the originating LEC's end user. In that context, the long distance carrier must pay the originating LEC for whatever portion of the service it obtains from that LEC.[171/] Thus, calls from a VoIP customer that terminate over ILEC switching facilities to a PSTN subscriber are subject to terminating access charges; calls from a PSTN subscriber to a VoIP customer that originate over ILEC switching facilities are subject to originating access charges.[172/] In no event would the originating LEC owe compensation to the CLEC intermediary.

In all of these cases, the application of access charges is a necessary transitional means of preserving industry stability, pending the adoption of a unified intercarrier compensation regime, as traffic migrates from the PSTN to VoIP. Particularly in the access charge context, "[a]voidance of market disruption pending broader reform is, of course, a standard and accepted justification for a temporary rule."[173/]

171/ *See* Declaratory Ruling, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 14 FCC Rcd 3689 ¶ 9 (1999) ("When two carriers jointly provide interstate access (e.g., by delivering a call to an interexchange carrier (IXC)), the carriers will share access revenues received from the interstate service provider."), *vacated and remanded on other grounds*, *Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000); Memorandum Opinion and Order, *Waiver of Access Billing Requirements and Investigation of Permanent Modifications*, 2 FCC Rcd 4518 ¶ 2 (1987) (stating that carriers' tariffs include two options related to the joint provision of access services, the second of which, meet point billing, "require[s] the LECs involved to divide ordering, rating and billing services on a proportional basis, so that each carrier billed under its respective tariff"); *see also* Second Report and Order and Third Notice of Proposed Rulemaking, *Expanded Interconnection with Local Telephone Company Facilities*, 8 FCC Rcd 7374 ¶ 1 (1993) (requiring expanded interconnection for switched transport services).

172/ Given the geographic indeterminacy of telephone numbers used in an IP environment, there may be billing requirements that pose challenges in applying access charges to IP-PSTN traffic in some instances. But such implementation challenges should not prevent the Commission from articulating the rule that interstate access charges do, in fact, apply to IP-PSTN traffic, and addressing any challenges on a case-by-case basis.

173/ *Competitive Telecomm. Ass'n v. FCC*, 309 F.3d 8, 14 (D.C. Cir. 2002) (upholding EELs restrictions designed in part to preserve special access revenues); *accord Competitive Telecomm.*

A contrary result would also be unreasonably discriminatory, in that it would grant preferential treatment to one particular class of service providers that uses the PSTN in the same way as others who are indisputably required to pay access charges. Such a decision would give the exempt providers a substantial unwarranted cost advantage over carriers that provide competing voice services using the same traditional circuit-switched facilities, allowing VoIP providers to pay lower rates for providing a voice product to their end users. Only through a uniform application of the access charge obligation can the Commission foreclose the competition-skewing incentives it described in rejecting AT&T's proposal for an access charge loophole.[174/] More generally, as the Commission itself recognizes, "any service provider that sends traffic to the PSTN should be subject to similar compensation obligations, irrespective of whether the traffic originates on the PSTN, on an IP network, or on a cable network. We maintain that the cost of the PSTN should be borne equitably among those that use it in similar ways."[175/]

In addition to asking whether access charges should apply when IP-enabled services use the PSTN (and they already do as a matter of law), the Commission seeks comment on whether it should create a two-tiered regime, in which providers of IP-enabled services are effectively entitled to discounted access services as compared to traditional telecommunications providers offering functionally equivalent services.[176/] In particular, a few carriers have suggested that IP-

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Ass'n v. FCC, 117 F.3d 1068, 1073-75 (8th Cir. 1997) (upholding interim access charge obligations in UNE context despite claimed lack of statutory authorization for them).

174/ *See AT&T Access Charge Order* ¶ 18.

175/ *NPRM* ¶ 33.

176/ *NPRM* ¶ 62.

enabled service providers should pay reciprocal compensation instead of access charges.[177] For the reasons just discussed, the Commission should not depart from its existing intercarrier compensation rules in this manner.[178] Such a regulatory system would produce the same irrational arbitrage and competitive asymmetries described above.[179]

Finally, insulating providers of IP-enabled services from paying access charges for traffic they send to a LEC's customer on the PSTN would harm consumers by threatening universal service and ILECs' ability to maintain affordable end user rates. The Commission has long recognized that its universal service policies are linked to the ability of ILECs to offer affordable communications services, which is itself largely dependent on a combination of multiple sources of income, including access charges.[180] As SBC explained at length in its comments on Level 3's forbearance petition,[181] access charge reform must proceed in unison with universal service reform and, as necessary, adjustments to end user rates, to make up any shortfalls caused by reductions in access charges. Such reform must be conducted on an integrated basis, not in a one-sided fashion that will benefit only a select group of providers while exposing ILECs to

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177/ *See* Level 3 Communications LLC Petition for Forbearance Under 47 U.S.C. § 160(c) from Enforcement of 47 U.S.C. § 251(g), Rule 51.701(b)(1), and Rule 69.5(b), WC Docket No. 03-266, at 31-34 (filed Dec. 23, 2003); *see also NPRM* ¶ 62 (asking whether carriers should be required to pay compensation under section 251(b)(5) of the Act rather than access charges).

178/ In addition, there is no reason to believe that state-ordered reciprocal compensation rates would be sufficient to recover the costs associated with the provision of access services. The fact that reciprocal compensation rates have been judged reasonable in one context in no way suggests that they remain so with respect to access services.

179/ The Commission should not, however, prevent carriers from *voluntarily* developing innovative interconnection services to meet marketplace demands.

180/ Sixth Report and Order, *Access Charge Reform*, 15 FCC Rcd 12962, 12965-74 ¶¶ 5-28 (2000) ("*CALLS Order*") (discussing the history of the Commission's regulations governing intercarrier compensation and universal service).

181/ *See* SBC Opposition to Level 3 Forbearance Petition at 6-9.

massive regulatory arbitrage that will jeopardize affordable telephone service for consumers and businesses. Accordingly, the Commission should immediately act to preserve, rather than erode, affordable telephone service by declaring that IP-enabled service providers must pay access charges when they send traffic to, or receive traffic from, non-customers on the PSTN — unless and until the Commission adopts a unified regime for intercarrier compensation.[182/]

2. The Commission Should Apply Interstate Access Charges to All IP-Enabled Services That Use the PSTN.

The Commission should clarify not only that IP-enabled service providers must pay access charges for their use of the PSTN for communications with non-customers, but also that the applicable charges are *interstate* access rates. This is the approach that is most consistent with the recognition that IP-enabled services are indivisibly interstate. Moreover, applying a single access charge regime to all IP-enabled service traffic will bring stability and certainty to intercarrier compensation obligations in this area, while allowing ILECs to maintain affordable local telephone service, pending the adoption of a unified regime for intercarrier compensation generally.

The Commission should reaffirm its existing rule that, when an ILEC's local exchange switching facilities are used for the provision of jurisdictionally interstate services, as is the case with IP-PSTN traffic for the reasons discussed above, the use of those facilities "by definition

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[182/] We recognize that some Internet service providers may offer VoIP services to their subscribers over "local" dial-up connections that use advanced software compression algorithms or next generation high-speed modems. In these circumstances, the end-user would be a customer of the ISP and would use the PSTN to access the ISP. Thus, under existing rules, the ESP exemption would apply, and compensation arrangements for such traffic would be governed by the Commission's compensation rules for ISP-bound traffic. Of course, to the extent the end-user dials a long-distance call to reach her ISP, the carrier of that long-distance call would owe jurisdictionally appropriate access charges — intrastate charges if the ISP and the end user were located in the same state, interstate charges if they were not.

constitute[s] a part of the interstate access service" and are governed by interstate access rules.[183/] That rule applies even though such services or facilities may, in limited instances, include an intrastate component. The Commission reached this precise jurisdictional conclusion when it ruled that DSL service is jurisdictionally interstate and is thus properly tariffed at the federal level, even though some of the traffic it carries "may be destined for intrastate or even local Internet websites or databases."[184/]

Moreover, for the same basic reasons (discussed above) that it would be impracticable to jurisdictionally divide IP-enabled services up into distinct interstate and intrastate spheres, it would likewise be impracticable to apply different compensation rules depending on whether the IP packets associated with any given call cross state borders. Just as the Commission found it would be infeasible to impose such a regime for jurisdictional purposes on Pulver's service,[185/] the Commission should also find that such geographical tracking would be inappropriate in determining compensation rules for any IP-enabled services — both because IP packets travel with geographic unpredictability across the global Internet and because of the geographically indeterminate nature of IP-enabled services.

183/ *Bill Correctors v. Pacific Bell*, 10 FCC Rcd 2305 ¶ 17 n.41 (1995) (citing *California v. FCC*, 567 F.2d 84 (D.C. Cir. 1977)); *see* 47 C.F.R. § 69.1(a) (establishing "rules for access charges for interstate or foreign access services"); *id.* § 69.2(b) (stating that "[a]ccess [s]ervice includes services and facilities provided for the origination or termination of any interstate or foreign telecommunication").

184/ *GTE Order* at 22478-79 ¶ 22; Memorandum Opinion and Order, *Telerent Leasing Corp.*, 45 F.C.C.2d 204, 218 ¶ 36 (1974) (asserting federal jurisdiction over the interconnection of customer-provided communications equipment with the PSTN, stating that "this Commission has repeatedly exercised jurisdiction over facilities and instrumentalities used in interstate communication despite the circumstance that such facilities are used also to provide intrastate service") (citations omitted).

185/ *Pulver Declaratory Ruling* at 3320-21 ¶ 21.

The application of interstate access charges for all IP-to-PSTN traffic is also the most reasonable approach from an economic perspective. As IP-enabled services become widespread, many subscribers will use them as replacements for ordinary circuit-switched telephony. To ensure industry stability during the transition to a unified intercarrier compensation regime, LECs should not receive diminished compensation when they originate or terminate traffic over the PSTN. That compensation traditionally would involve the assessment of reciprocal compensation for local calls, interstate access charges for long distance calls that cross state boundaries, and intrastate access charges for toll calls that remain within state boundaries. Of those three types of payment obligations, reciprocal compensation typically is the lowest and intrastate access charges are the highest. Interstate access charges, which fall in between, thus serve as a rough proxy for the compensation that PSTN providers would receive in the absence of wholesale conversions to IP-enabled services. Indeed, depending on customer traffic patterns, use of interstate access charges may somewhat *understate* what PSTN providers would otherwise receive because, at least in the near term, flat-rated VoIP services may be attracting heavy users of circuit-switched toll services, for which compensation is recovered *exclusively* through interstate and (higher) intrastate access charges.[186/] Nonetheless, although inexact, the approach proposed here will provide stability during the intervening period before the Commission adopts a unified solution to the question of intercarrier compensation generally. Finally, the Commission has already determined that existing interstate access charges are reasonable as a form of compensation for the termination of interstate traffic. The Commission has approved

[186/] *See* VoIP Fact Report at 16, 18; *VoIP fast becoming Mainstream Service yet multiple standards still exist*, M2 Presswire, 2004 WL 74988509 (Apr. 26, 2004).

such charges as consistent with sections 201 and 202 of the Act, and it has removed implicit universal service support from them in connection with the CALLS and MAG plans.[187]

In declaring that interstate access charges are applicable to IP-enabled services that originate or terminate in circuit-switched format on the PSTN, the Commission must also permit carriers to adopt effective mechanisms for preventing fraud in the implementation of such a declaration. In particular, the Commission should authorize ILECs to include provisions in their interstate access tariffs and interconnection agreements that would require providers to pay the highest access charge that could otherwise be applied, whether interstate or intrastate, in the event they are discovered to have disguised (or assisted in disguising) jurisdictionally interstate IP-to-PSTN calls as local circuit-switched calls for purposes of evading the access charge regime. Further, the Commission should declare that, when a dispute arises about whether particular traffic is subject to interstate access charges as IP-to-PSTN traffic, the burden of proof is on the provider of the IP-to-PSTN services (*i.e.,* a party[ies] sending traffic to or picking traffic up from the PSTN) to demonstrate that the traffic is not subject to interstate access charges. The Commission should also take swift and strong enforcement action against any party that engages in access charge fraud. Indeed, if the Commission does no more than declare that interstate access charges apply without providing sufficient incentives for compliance with those access charge obligations, it will only encourage providers to engage in unlawful access avoidance schemes, thereby requiring ILECs to expend substantial time and resources to

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187/ *See CALLS Order* at 12975-76 ¶ 32; Second Report and Order and Further Notice of Proposed Rulemaking, *Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers,* 16 FCC Rcd 19613, 19617 ¶ 3 (2001) ("*MAG Order*").

investigate and prosecute the perpetrators. But if the Commission implements the measures discussed above, it can send a clear signal that access charge fraud will not be tolerated.

If, however, the Commission is for any reason unwilling at this time to adopt the uniform application of interstate access charges for IP-to-PSTN calls as proposed by SBC, the Commission must not take any action that will undermine the ability of SBC or any other local exchange carrier to maintain affordable local telephone service for American consumers and businesses. Thus, in the event the Commission does not apply interstate access charges uniformly to IP-PSTN calls (or otherwise chooses not to resolve the issue of intercarrier compensation for IP-enabled services in a timely manner), the Commission should, at a minimum, expeditiously affirm that local telephone companies should continue to charge "jurisdictionalized" compensation rates for IP-PSTN traffic (notwithstanding its interstate nature) in accordance with their existing tariffs — at least until the Commission completes its intercarrier compensation proceeding. Existing tariffs of local exchange carriers contain various methods to deal with the lack of geographically accurate endpoint information, such as the use of calling party number information together with other data.[188/] Such an affirmation from the Commission is critically important to ensure that local telephone companies are protected from unlawful access charge avoidance schemes that could jeopardize the affordability of local rates during the transition to a unified intercarrier compensation regime.

[188/] *See, e.g.*, Pacific Bell Telephone Company Schedule Cal. P.U.C. No. 175-T, Section 2.3.14; Pacific Bell Telephone Company Tariff F.C.C. No. 1, Section 2.3.14. Until the Commission addresses the access charge issues raised in this proceeding or otherwise changes its access charge rules, these provisions continue to govern the application of access charges to IP-to-PSTN services.

B. The Commission Should Adopt Numbering Policies That Promote the Development of IP-Enabled Services and Facilitate Competition While Preventing Number Wastage.

IP-enabled service providers that wish to provide access to the PSTN must obtain North American Numbering Plan ("NANP") telephone numbers for their customers; otherwise, those customers could not receive calls from subscribers to a circuit-switched network. As discussed below, the Commission's current rules limit direct access to NANP numbering resources to certified (state or federal) telecommunications carriers, a class that excludes providers of IP-enabled services, which, as discussed above, are information service providers. Although IP-enabled service providers may obtain such numbers *indirectly* by partnering with a competitive LEC, such arrangements may not reflect the most efficient network architectures and may impede the development of innovative services. The Commission should thus amend its numbering rules to place IP-enabled service providers on competitive par with telecommunications carriers with regard to access to numbering resources. Failure to do so would violate the Commission's obligation under section 251(e) of the Act to "make [NANP] numbers available on an equitable basis," a mandate the Commission itself has properly interpreted to preclude numbering rules that, like those at issue here, "unduly favor or disadvantage any particular industry segment or group of consumers" or "unduly favor one technology over another."[189]

Of course, the Commission must ensure that numbering resources are not wasted or exhausted. Accordingly, the Commission can and should ensure that providers of IP-enabled services meet basic criteria designed to show their readiness and intent to use the numbering

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[189] Public Notice, *FCC Establishes North American Numbering Council Advisory Committee*, 11 FCC Rcd 22367, 22368 (1996).

resources they obtain, just as it does with telecommunications carriers.[190/] And the Commission should impose basic numbering conservation measures on all IP-enabled service providers that use numbers, including those that rely on telecommunications carriers to obtain numbers for them. There has been some speculation that VoIP, like virtual NXX ("VNXX"), paging, and certain other services, may exacerbate number exhaustion concerns because end users can obtain several numbers without regard to geographic location. The Commission should certainly monitor such concerns, but it should also recognize that some VoIP offerings may *reduce* number exhaustion by enabling subscribers to consolidate existing lines for voice and data, for example.

Finally, the Commission should ensure that VoIP providers that obtain the benefits of numbering — whether directly or indirectly — meet the basic responsibilities that accompany those benefits. Today, telecommunications carriers alone are subject to number portability obligations. But VoIP providers that use numbers to provide competing voice services may not themselves be directly subject to such obligations. Subscribers that use VoIP thus would have a unique disincentive to switch to a competing service because they would be unable to take their numbers with them. This can warp competition both between VoIP and legacy services and among VoIP services. The Commission accordingly should enforce local number portability obligations with respect to VoIP providers that use numbers, and it has clear authority to do so.

190/ *See, e.g.,* Third Report and Order and Second Order on Reconsideration, *Numbering Resource Optimization*, 17 FCC Rcd 252, 256-57 ¶ 7 (2001) ("*Third Numbering Order*"); Second Report and Order, *Numbering Resource Optimization*, 16 FCC Rcd 306, 310 ¶ 4 (2000); Report and Order and Further Notice of Proposed Rulemaking, *Numbering Resource Optimization*, 15 FCC Rcd 7574, 7579-80 ¶ 6 (2000) ("*First Numbering Order*").

1. IP-Enabled Service Providers That Meet Certain Essential Requirements Should Be Given Direct Access to NANP Numbering Resources.

Many VoIP services in the market today allow customers on a broadband IP network to call parties served by a carrier operating on a time division multiplexed ("TDM") network that is part of the PSTN, and vice versa. In order for such calls to be possible, the VoIP provider must be able to assign a telephone number to its customer; otherwise, a customer on the PSTN would have no way of dialing the VoIP customer. VoIP providers, however, are information service providers, which are not eligible for direct assignment of telephone numbers under the Commission's existing rules. This is because section 52.15(g)(2)(i) of the Commission's rules provides that numbering applicants must be "authorized to provide service in the area for which the numbering resources are being requested."[191/] The Commission has interpreted that rule as requiring "carriers [to] provide, as part of their applications for initial numbering resources, evidence (*e.g.*, state commission order or state certificate to operate as a carrier) demonstrating that they are licensed and/or certified to provide service in the area in which they seek numbering resource[s]."[192/]

Accordingly, in order to obtain NANP telephone numbers that can be assigned to their customers, VoIP providers often purchase a retail product from a competitive LEC, such as a Primary Rate Interface ("PRI") ISDN line. Typically, the VoIP provider also uses this retail product to interconnect with the PSTN so it can send and receive certain types of traffic between its network and various carrier networks.[193/] In this arrangement, the competitive LEC

191/ 47 C.F.R. § 52.15(g)(2)(i).

192/ *First Numbering Order* at 7613 ¶ 97.

193/ Many VoIP providers convert VoIP traffic from IP format to circuit-switched format before delivering that traffic to a LEC.

terminates the VoIP traffic on the PSTN or delivers that traffic to another carrier for termination on the PSTN.[194]

While this form of interconnection may allow the VoIP provider to obtain numbering resources (by purchasing a PRI) and interconnection with the PSTN, it may not be the most efficient or cost-effective means for a VoIP provider to send originating traffic to the PSTN because it requires separate interconnection with potentially multiple end office switches, using access products that may be limited in terms of availability and scalability. In particular, a VoIP provider's ability to offer service may be limited by the locations, calling scopes, and installation schedules of the providers and products utilized to gain access to end-offices.[195]

Thus, in many ways, the current situation faced by VoIP providers seeking direct interconnection with the PSTN is analogous to the early days of the commercial wireless industry. Initially, many wireless carriers did not own their switches and instead relied on ILECs to perform switching functions for them. As a result, wireless carriers needed to interconnect with individual ILEC end offices to route traffic. This is known as "Type 1" interconnection.[196] As the wireless industry matured and wireless carriers began purchasing switches of their own,

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[194] As discussed in Section VI.A of these comments, when interexchange traffic is delivered to an incumbent LEC for termination on the PSTN, the incumbent LEC is entitled to receive access charges for that traffic under the Commission's current rules, regardless of whether that traffic originated in IP format on a broadband network. VoIP providers, and the other carriers they partner with, are not permitted to terminate interexchange traffic to an incumbent LEC using PRI lines.

[195] For example, PRI lines are not available in all central office serving areas.

[196] *See* Declaratory Ruling, *The Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services*, 2 FCC Rcd 2910, 2913-14 ¶¶ 27-35 (1987) ("*Wireless Declaratory Ruling*"); *FCC Policy Statement on Interconnection of Cellular Systems*, attached as Appendix B to Memorandum Opinion and Order, *The Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services*, 1986 LEXIS 3878 (1986) ("*Wireless Policy Statement*").

they sought more efficient means of interconnection with the PSTN, both at ILEC end offices and at ILEC tandem switches, which became known as "Type 2" interconnection.[197/] In facilitating this latter form of interconnection, the Commission recognized that it may offer "superior technical capabilities and greater service quality,"[198/] and may help wireless carriers to "minimize unnecessary duplication of switching facilities and the associated costs to the ultimate consumer."[199/] The Commission further observed that Type 2 interconnection allows wireless carriers to design their networks more efficiently and would further the Commission's "longstanding goal of bringing cellular service to the public as rapidly as possible."[200/] At the same time, the Commission recognized that wireless providers also needed efficient access to numbering resources, which were not "owned" by the ILECs (or CLECs today),[201/] but are instead a "public resource."[202/] The Commission concluded that wireless carriers, just like the ILECs, were "entitled to reasonable accommodation of their numbering requirements."[203/]

Much like the wireless industry's early efforts to evolve from Type 1 to Type 2 interconnection, amending the Commission's rules to allow VoIP providers to obtain numbering resources directly from the North American Numbering Plan Administrator ("NANPA") and /or the Pooling Administrator ("PA") would level the inter-modal playing field. By interconnecting with the PSTN on a trunk-side basis, at a centralized switching location — *e.g.*, a tandem switch

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197/ *Wireless Declaratory Ruling* at 2913 ¶ 27.

198/ *Id.*

199/ *Wireless Policy Statement* at *32-33 ¶ 2 (citation omitted).

200/ *Wireless Declaratory Ruling* at 2913 ¶ 29, 2914 ¶ 33.

201/ *Wireless Policy Statement* at *34-35 ¶ 4.

202/ *See* Report and Order, *Administration of the North American Numbering Plan*, 11 FCC Rcd 2588, 2591 ¶ 4 (1995).

203/ *Wireless Policy Statement* at *34-35 ¶ 4.

— VoIP providers can more efficiently utilize their softswitches and gateways[204/] to develop services that overcome the availability and scalability limitations inherent in the current methods of line-side interconnection to end office switches.

In fact, it is quite clear that the Commission's original rules were never intended to restrict full access to numbering resources by service providers who are willing and able to use NANP numbers to serve customers. As the Commission's *First Numbering Order* explained in 2000, carriers were at that time routinely requesting and obtaining numbers *before* being certified by the state to provide service, "result[ing] in highly inefficient distribution of numbering resources" because numbers frequently sat idle pending certification and actual need.[205/] To avoid such waste, the Commission enacted not only the rule at issue here, but also 47 C.F.R. § 52.15(g)(2)(ii), which requires applicants to "be capable of providing service within sixty (60) days of the numbering resources activation date."[206/] The *Order* emphasizes, however, that neither regulation was intended to prevent *bona fide* applicants, who will actually use the numbers to provide service, from receiving them.[207/]

[204/] A "gateway" or "media gateway" is a device that can receive circuit switched, TDM traffic and packetize it and deliver it to an IP-based network. A media gateway can be combined with, or separate from, a softswitch, which routes packetized traffic on the IP-based network.

[205/] *First Numbering Order* at 7613-14 ¶¶ 94, 96.

[206/] 47 C.F.R. § 52.15(g)(2)(ii).

[207/] *First Numbering Order* at 7615 ¶ 99 (Commission "d[id] not intend to circumscribe any carrier's ability to obtain initial numbering resources in order to initiate service;" its rule was designed only "to prevent actual or potential abuses of the number allocation process;" and it, "[i]n fact, . . . expect[ed] the establishment of these requirements to make more numbering resources available to carriers lawfully authorized by state commissions to provide local service by preventing unauthorized carriers from unlawfully depleting numbering resources."). The Industry Numbering Committee's (INC) rules, which are incorporated by reference in the Commission's own rules, likewise express a clear preference that numbers be associated with actual facilities, precisely because such facilities help demonstrate "readiness" to provide service. 47 C.F.R. § 52.13(b)(3) (incorporating by reference the guidelines of the North

Here, so long as VoIP providers have the facilities at hand to put their numbers to use, there is no principled justification for denying them access to NANP numbers simply because they lack a state certificate. The reason they cannot obtain such a certificate — their status as information service providers — is irrelevant to their ability to use those numbers. And the Commission can ensure that such providers will not waste their numbers by permitting direct assignment of numbering resources only to those providers offering services to the public that: (1) own or control a softswitch connected to the PSTN via tandem interconnection; (2) provide connectivity to the PSTN using a traditional TDM signaling and SS-7 functionality; and (3) provide location routing number ("LRN") functionality for implementation of local number portability. These criteria will demonstrate the "facilities readiness" that the Commission considers an important indicator of a numbering applicant's intention and ability to use the numbers it receives. In addition, by requiring providers to invest in facilities that interconnect with the PSTN in the manner described above, these criteria will help ensure that such providers have an incentive to safeguard the integrity of the PSTN, as well as their own IP networks.

This approach would be fully consistent with and indeed would advance the Commission's obligation to make sure that numbers are available on an equitable basis.[208/] And the Commission also has and should exercise the authority, as a condition for granting those numbers, to ensure that VoIP providers comply with other measures designed to prevent number wastage and support the costs associated with numbering administration. Those measures might, in some instances, have to be adapted to the specific circumstances of the IP-enabled services market and IP technologies under the Commission's Title II non-carrier-specific authority and/or

American INC); *Thousands-Block Number (NXX-X) Pooling Administration Guidelines*, INC 99-0127-023, § 4.3.1.2 (clarifying that the 60-day requirement is satisfied by "facilities readiness").

208/ *See* 47 U.S.C. § 251(e)(1).

its Title I ancillary authority, but they are relatively straightforward and not unduly burdensome. Specifically, IP-enabled service providers should comply with the following:

- *Contribution to Numbering Administration Costs:* Wireline and wireless service providers are required to contribute to numbering administration costs on the basis of their revenues.[209/] IP-enabled service providers that obtain numbers directly from the NANPA likewise should be required to contribute to the costs of numbering administration, which include pooling and portability administration costs. This, in turn, would require IP-enabled service providers to comply with the Commission's revenue reporting requirements in order to allow the North American Numbering Plan Billing and Collection ("NBANC") agent to determine the appropriate contribution for a given provider. Like other service providers, IP-enabled service providers would be exempt from a contribution obligation if they fall below the *de minimis* threshold in the Commission's rules.[210/]

- *Number Pooling*: The Commission should also extend its thousand-block number pooling requirements to providers that obtain their numbers directly. Number pooling is an important policy that helps to prevent over-distribution of numbers that may not be utilized. The Commission identified NANPA's prior practice of allocating numbers in pools of 10,000 as "one of the major drivers of [number] exhaust."[211/] With thousand-block number pooling, blocks of 10,000 numbers (all of the numbering resources from a single NXX code) are broken up into sequential blocks of 1,000 numbers each (down to the NPA-NXX-X level). The 10 blocks of

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209/ *See id.* § 251(e)(2); 47 C.F.R. § 52.17.

210/ *See e.g.*, 47 C.F.R. § 52.17(a) (no contributions below $25). Of course, providers that obtain numbers through an ILEC or CLEC indirectly contribute to the support for numbering costs by increasing the LEC's revenues.

211/ *First Numbering Order* at 7621-22 ¶ 116.

1,000 numbers are allocated within one rate center, but they can be allocated to multiple service providers. IP-enabled service providers that seek direct access to numbers should be required to implement the necessary technology so that they can use 1,000 number blocks where appropriate to meet their forecast requirements.

- *Reporting Requirements*: Like carriers that use numbering resources, IP-enabled service providers should be required to report Number Resource Utilization/Forecast ("NRUF") data as a condition of direct access to NANP numbers from NANPA or the PA.[212] To prevent number wastage, all entities using numbering resources should be required to demonstrate their plans to utilize those numbers and then confirm that they have done so. At the same time, to minimize the administrative burdens on emerging IP-enabled service providers, SBC suggests that the Commission impose modified reporting requirements for IP-enabled service providers. IP-enabled service providers, who would be getting numbers directly for the first time (if the Commission amends its rules to permit that), should not initially be required to provide a 5-year forecast because they lack sufficient experience and data to support such a forecast. The 5-year forecast requirement should be suspended until a provider requests its fourth block of numbers in any rate center (*i.e.*, requests more than 3,000 numbers), until the provider exceeds one full NPA-NXX (10,000) where Number Pooling is not implemented, or, in the event the provider reaches neither of these numbering resource utilization thresholds, until three years after the provider first receives numbering resources directly from NANPA or the PA.

Finally, although SBC has focused on number exhaust issues relating to numbers that VoIP providers might obtain directly from NANPA or the PA, there may be IP-enabled service providers that seek to continue obtaining numbers indirectly through other carriers (*e.g.*, by

[212] 47 C.F.R. §§ 52.15(f)(4)-(5).

purchasing PRI lines). They, too, should be required to comply with certain basic reporting requirements. Such providers should, for example, have to comply with utilization reporting requirements that may apply to carriers that use "intermediate" numbers, such as resellers.[213/]

2. The Commission Should Monitor the Impact of VoIP Services on Number Exhaustion.

Given the finite nature of NANP numbers and the extraordinary cost that would be incurred upon their depletion, the Commission has a valid interest in preventing number exhaustion and wastage. But it is not clear that VoIP service presents any immediate — or indeed, any — cause for special concern. It is true that VoIP services do permit end users to obtain multiple numbers, without any connection to their physical location. But that concern is not unique to VoIP services. Even before such services began to proliferate, paging companies, and CLECs offering virtual NXX, began presenting similar concerns. Further, VoIP services may actually cause a countervailing *reduction* in number usage. IP technology permits consolidation of many services, permitting a subscriber to have one connection for voice and data, for example. As such services proliferate, more and more end users can be expected to give up second lines, thus freeing up some numbering resources.

Until the Commission determines whether and to what extent there is a problem, it should refrain from trying to fashion any type of service-specific rules designed to prevent number exhaustion. Such rules likely would stunt technological and service innovation without producing measurable benefits; the Commission cannot simply turn back the clock and insist that

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213/ *See* North American Numbering Plan Numbering Resource Utilization/Forecast ("NRUF") Report, Form 502, at 2 (rev. June 1, 2002) ("Carriers that receive intermediate numbers must report utilization data for such numbers . . . ."); *id.* at 4 ("Intermediate reporting carriers are not required to complete a forecast form. This exception only applies to carriers that operate solely as intermediate carriers.").

numbers be assigned so that they correlate exclusively to the end user's primary location. The Commission can best contribute to preventing number exhaustion tomorrow if today it confines itself to understanding the scope of the problem and to working with the industry to explore the best means of addressing it.

One issue the Commission should consider in particular when it undertakes that process is the growing concern about whether NANP numbers are now being distributed, or will soon be distributed, to customers located *outside* the United States and other NANP countries as a means for enabling them to avoid international charges. Vonage has suggested, for example, that it is actively investigating the option of procuring NANP numbers for international subscribers physically outside the United States and Canada.[214/] If this practice becomes widespread, such that much of the world's population begins claiming U.S. telephone numbers, it will rapidly deplete the finite stocks of 10-digit NANP numbers. And, once those numbers are depleted, it will cost many billions of dollars to retrofit the current telecommunications infrastructure to accommodate a different numbering scheme.[215/] These are very serious concerns, and the Commission should seek comment on an expedited basis on how it can develop methods for preserving North America's finite numbering resources without unduly interfering with the flexibility of IP-enabled services.

3. The Commission Should Require VoIP Providers That Use Numbers to Offer Number Portability.

The Commission should impose local number portability obligations on VoIP providers that utilize numbers (directly or indirectly) to offer enhanced voice applications, so that VoIP

[214/] http://www.vonage.com/features_int_vir_numbers.php ("[Q:] Will Vonage offer International Virtual Numbers outside of Canada? [A:] We are expanding our network rapidly, but are not yet announcing locations outside of Canada.").

[215/] *Third Numbering Order* at 256-57 ¶ 7 nn.8-9.

providers do not distort competition by making it impractical for their subscribers to switch service providers. Today, telecommunications carriers alone must offer number portability.[216/] If equivalent obligations are not imposed on their VoIP competitors, such portability could become a one-way street.[217/] VoIP providers that obtain the benefits of numbering — whether directly from NANPA or the PA, or indirectly from a LEC partner — should not obtain an unfair competitive advantage when they do so.

As the Commission has recognized, number portability is essential to reducing the "switching costs" that interfere with free consumer choice even in an otherwise competitive environment.[218/] IP-enabled service providers that use numbering resources to compete with local exchange carriers should have no special advantages in this regard and no special means of pressuring their customers to stick with their existing service simply to avoid the personal disruption that accompanies a change in telephone numbers. In short, like all other competitors, they should be required to allow subscribers to take their numbers with them. The Commission should work with the industry to determine technological means of accomplishing such

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216/ *See* 47 U.S.C. § 251(b)(2) (local exchange carriers must offer number portability)

217/ Today, the typical VoIP provider relies on a telecommunications carrier partner to obtain numbers for it. When a LEC's customer asks to port her number to the VoIP provider, the number is actually ported behind the scenes to the telecommunications carrier partner, which assigns it to the VoIP provider. The VoIP provider may frustrate the customer's efforts to port her number *back* to the LEC in the event she becomes dissatisfied with her VoIP service, because the VoIP provider does not today have any explicit portability obligations, and the telecommunications carrier partner does not itself have any direct relationship with the customer.

218/ *See, e.g.*, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, *Telephone Number Portability*, 18 FCC Rcd 23697 (2003); First Report and Order and Further Notice of Proposed Rulemaking, *Telephone Number Portability*, 11 FCC Rcd 8352, 8355 ¶ 2 (1996) ("*Number Portability Order*") ("Congress has recognized that number portability will lower barriers to entry and promote competition in the local exchange marketplace.").

portability (to the extent there are any unique concerns) and to establish a timetable for compliance.

The Commission's authority to impose local number portability requirements is not constrained to the local exchange carriers covered by the language in section 251(b)(2) of the Act. As an initial matter, the Commission has specifically based number portability requirements in other contexts in part on its Title I authority, wholly apart from any Title II authority.[219/] In addition, as a "belt and suspenders" approach, the Commission could exercise its exclusive authority to ensure "equitable" availability of numbering resources under section 251(e) of the Act to specify that full and effective number portability is a condition of any VoIP provider's direct or indirect use of numbering resources.

C. The Commission Should Participate in Developing National Standards for IP-Enabled 911 Services, and It Has the Authority to Fashion 911 Rules for the Provision of Certain IP-Enabled Services, If It Determines Such Rules Are Necessary.

As IP-enabled services that provide voice applications (such as VoIP) proliferate, such services should provide the responsive and accurate emergency calling capabilities that end users have come to expect from legacy telecommunications services. Because that is not yet uniformly the case, this issue merits Commission involvement and leadership in the near term to ensure that the industry is appropriately addressing this challenge. Today, technological and other limitations make the 911 calling capabilities offered over VoIP services more cumbersome and less effective than those offered over the PSTN. All VoIP providers cannot yet offer their subscribers 911 service that automatically routes emergency calls directly to a public safety

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219/ *See id.* at 8355 ¶ 4 (extending portability requirements to wireless carriers, which have not been classified as "local exchange carriers" (*see* 47 U.S.C. § 153(26)), based on independent authority under sections 1, 2, 4(i), and 332 of the Act).

answering point ("PSAP"). Nor can they offer their customers automated "E-911" capabilities — that is, the automatic transmission to the PSAP of information identifying the location of the customer — without relying on the customer to manually input and update his or her location information.

The Commission has jurisdiction to address this issue, and it should do so. However, it may not be necessary to heavily regulate in this area. The industry is diligently working to address the current 911 shortcomings of VoIP. The Commission may be able to best serve the public interest here by encouraging those efforts and helping to establish uniform, minimal standards.

1. The Commission Has Ample Authority to Address 911 Obligations for IP-Enabled Services that Interconnect with the PSTN and Provide Voice Capabilities.

Even if IP-enabled services are classified (as they should be) as information services, the Commission has clear authority to address the 911 obligations for IP-enabled services and service providers.[220/] The Commission has recognized that, "from the inception of the Federal Communications Commission through to the present day," it has been charged with "ensuring that the public safety needs of Americans are met to the extent that those needs must be

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220/ The Commission must take the lead here. Because IP-enabled services are provided on a national basis, the providers cannot realistically comply with the varied and probably incompatible demands of thousands different PSAPs and fifty different states. Commission leadership is necessary because "specific requirements, . . . vary[ing] significantly from one state to another," would yield "mutually incompatible systems . . . likely to cause user confusion or higher costs in equipment or services." Notice of Proposed Rulemaking, *Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems*, 9 FCC Rcd 6170, 6172 ¶ 11 (1994) ("*1994 E-911 Order*").

transmitted by wire or radio communications to emergency service personnel."[221] The Commission has described this as a "statutory mandate[] under the Communications Act,"[222] flowing from Title I of the Act.[223] Specifically, section 151 of the Act gives the Commission the general authority to make available communications on a national basis, with adequate facilities, "for the purpose of promoting safety of life and property through the use of wire and radio communication."[224] As the Commission has noted, "it is difficult to identify a nationwide wire or radio communication service more immediately associated with promoting safety of life and property than 911."[225] And section 251(e)(3), enacted as part of the Wireless Communications and Public Safety Act of 1999, authorizes (and requires) the Commission to establish 911 as the universal emergency telephone number for the nation.[226] These sections, together with the Commission's general authority to make rules and regulations as necessary to fulfill its duties under the Act,[227] empower the Commission "to determine whether the public interest require[s]

221/ Report and Order and Second Further Notice of Proposed Rulemaking, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 18 FCC Rcd 25340, 25346 ¶ 14 (2003).

222/ Report and Order and Further Notice of Proposed Rulemaking, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 11 FCC Rcd 18676, 18681 ¶ 8 (1996) ("*1996 E-911 Order*").

223/ *Id.*

224/ 47 U.S.C. § 151.

225/ *1994 E-911 Order* at 6171-72 ¶ 7.

226/ 47 U.S.C. § 251(e)(3).

227/ *See id.* § 154(i).

that a provider of a particular service should be required to provide 911/E911 to its customers, and if so, to what extent and in what time frame . . . ."[228/]

Nothing in section 151 or section 251(e)(3) suggests that the Commission's 911 authority is limited to telecommunications carriers, and there is no reason it should be. If IP-enabled information services are essential to "promoting safety of life and property," as they increasingly will be to the extent consumers rely on them as their primary voice communications tool, they are plainly covered by the Commission's mandate. As Congress noted in the Wireless Communications and Public Safety Act, the Commission is obligated to preserve a "seamless, ubiquitous, and reliable end-to-end infrastructure for communications . . . to meet the Nation's public safety . . . needs."[229/] And as Congress recognized, "emerging technologies can be a critical component of the end-to-end communications infrastructure."[230/] In these circumstances, the Commission's ancillary authority to promote the goals of the Act and "discharge its overall responsibilities" by overseeing 911 obligations of IP-enabled services is beyond question.[231/]

In a different context, the Commission has defined four criteria that serve as appropriate "gating" criteria for those services that should be subject to 911 obligations. In determining which wireless providers should be subject to E-911 obligations, the Commission considered whether (1) the service "offers real-time, two-way voice service that is interconnected to the public switched network;" (2) customers "have a reasonable expectation of access to 911 or

228/ *NPRM* ¶ 53 n.162 (citing Memorandum Opinion and Order, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 18 FCC Rcd 25340, 25345-46 ¶¶ 13-15 (2003) ("*E911 Scope Order*")).

229/ 47 U.S.C. § 615.

230/ *See id.* § 615 note (e); Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 113 Stat. 1286 (codified at 47 U.S.C. §§ 222, 251(e)).

231/ *See Southwestern Cable*, 392 U.S. at 177.

E911 services;" (3) the service competes with traditional voice service; and (4) the service can technically and operationally support E-911.[232] These basic criteria serve as an appropriate test for those IP-enabled services that would be most clearly within the Commission's 911-related ancillary jurisdiction. Specifically, those IP-enabled services that interconnect with the PSTN and offer subscribers a voice service are those from which subscribers are most likely to expect 911 capabilities.

2. The Commission Should Work with Industry Stakeholders to Establish National 911 Standards for IP-Enabled Services.

The complexities involved in implementing the E-911 requirements for wireless providers offer ample evidence that designing and enforcing acceptable and standardized 911 solutions for IP-enabled services will be neither easy nor quick. The Commission has an important leadership role to assume, and it should do so now to help establish clear standards on which the industry can develop IP-enabled technology and equipment. Establishing standards now will help prevent the disruption and costs associated with retrofitting a solution if, after providers invested in separate, ad hoc solutions, the Commission determined that uniform standards were required. As demonstrated by the 911 wireless implementation experience, attempting to implement uniform standards after years of ad hoc industry development creates numerous technical pitfalls, needlessly consuming time, money, and resources.[233]

The wireless 911 implementation also highlights the importance of centralized coordination given the number of affected stakeholders. In addition to countless commercial

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[232] *E911 Scope Order* at 25347 ¶ 18.

[233] In the wireless example, national standards still did not exist some sixteen years after wireless service was first introduced in 1983. *See 1996 E-911 Order*. Between 1983 and 1996, the wireless industry generated multiple protocols that ignored previous ANI and ALI call delivery conventions. This proliferation of inconsistent protocols ultimately resulted in a 911 implementation with increased costs and a longer implementation timeframe.

stakeholders and agencies at the local, state, and federal level, there are more than six thousand primary and secondary PSAPs[234/] of varying size, resources, and capabilities.[235/] Addressing technology and standardization issues among so many stakeholders and across jurisdictional divisions between federal, state, and local governments requires strong, national leadership from the Commission.

In considering the 911 standards for IP-enabled services, the Commission should consider and build on the progress that IP-enabled service providers have made working cooperatively with public agencies to date. And the Commission should be careful not to deter the substantial technological contributions that IP-enabled services can make with respect to the provision of E-911 services. The 911 infrastructure technology has not changed significantly since the 1970s and has been upgraded only through a series of patchwork fixes and short-term solutions. The standards fashioned for IP-enabled services must leave room for continued technological development and innovation, and should not cramp such development in order to fit within the framework of a technologically outdated or limited system.

Registered E-911: The Commission and industry resources should focus on the immediate need for E-911 services in VoIP applications where the subscriber has registered his or her location with the VoIP provider. Many such services are already offered today.[236/] SBC-

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234/ *See* http://www.nena.org/911_facts/911fastfacts.htm.

235/ Dale N. Hatfield, *A Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services* at 18 (2002) ("Hatfield Report").

236/ VoIP Fact Report at 17 (citing Time Warner Cable, *Time Warner Cable Maine Frequently Asked Questions* (http://www.twcdigitalphone.com/maine/faq_specialfeatures.htm#Can%20I%20call%20911) ("enhanced 911 service is provided" in Time Warner's current VoIP markets); *Cox Communications Inc. at Citigroup Smith Barney Entertainment, Media & Telecom Conference — Final*, Fair Disclosure Wire (Jan. 7, 2004) ("Cox's voice over IP architecture provides customers the same lifeline services, traditional, standard LEC telephone service, including enhanced 911."); *Cable Operators See Advantages to*

IP's HIPCS service, for example, includes E-911 service based on the location of the customer's workstation.[237/] And independent VoIP providers may purchase and use SBC's 911 services[238/] to offer E-911 services to their own customers. SBC's 911 services allow the VoIP provider to build and maintain their end users' station numbers and associated location records in the E-911 database. In other words, the VoIP provider is responsible for updating each of its end users' initial IP addresses with their fixed physical addresses. Once this information is in the E-911 database, the VoIP provider may transport its end users' 911 calls (with Automatic Number Identification ("ANI")) to the appropriate selective router, and SBC-IP's 911 service will route and deliver the 911 call and the 911 caller's ANI and Automatic Location Identification ("ALI") to the correct PSAP.[239/]

Regulating VoIP, Communications Daily (May 4, 2004) ("[Bill Dame, Cox dir.-network switch engineering] said Cox has 'gone the extra mile' to assure high quality of service, including capabilities to add E911"); *see also* M. Paxton, *Cable Telephony Service: The Third Leg of Cable's "Triple Play" Bundle*, In-Stat/MDR at 24 (Nov. 2003) ("While it is not a powered lifeline connection, Optimum Voice will offer E-911 emergency service."); A. Quinton, *et al.*, Merrill Lynch, *VoIP Update* (Dec. 1, 2003) ("Vonage . . . offer[s] a form of 911 service."); Net2Phone Presentation at 13, *FCC VoIP Forum* (Dec. 1, 2003) ("NCT [Net2Phone Cable Telephony] has a 911 solution in place today."); Covad Press Release, *Covad Announces Voice Over Internet Protocol (VoIP) Deployment Plans* (Feb. 9, 2004) ("Covad . . . announced plans to offer Voice over Internet Protocol (VoIP) services to business customers and consumers . . . [with] emergency 911 . . . [as a] standard feature[].").

[237/] The accuracy of this 911 service is dependent upon end users to maintain accurate station number and location records in SBC's E-911 database.

[238/] A 911 service, available to all VoIP providers, is SBC's Private Switch/Automatic Location Identification ("PS/ALI") product (also known as PS/911 or Locator ID, depending on the geographic region). VoIP providers that are also CLECs may use SBC's existing service ordering/provisioning process for CLECs to provision their customer records in the SBC E911database. Both options provide VoIP providers with direct interconnection with the 911 network, thereby routing 911 calls (and the caller's location) directly to the appropriate PSAP operator.

[239/] The accuracy of the records in the E-911 database (and, in turn, the accuracy of the E-911 service) is dependent upon the VoIP provider's maintenance of accurate station number and location records.

The Commission should work with the industry to ensure that all providers of IP-enabled, PSTN-connected services using NANP numbers to provide voice applications can provide E-911 for their registered VoIP services, and do so according to uniform national standards. The first step the Commission should take is to engage actively with the VoIP industry, the Alliance for Telecommunication Solutions ("ATIS"), the Emergency Services Interconnection Forum ("ESIF"), and the National Emergency Number Association ("NENA") to ensure the development of national standards. These organizations are already actively undertaking efforts to address VoIP 911.[240/] Commission leadership will help avoid the potential proliferation of multiple incompatible standards, which would substantially increase the cost, complexity, and timeframe of IP-enabled 911 deployment. By driving the development and acceptance of industry interface standards, the Commission would ensure that VoIP providers can consistently and effectively deliver accurate 911 information to the correct PSAPs, and that consumers can obtain consistent service across providers. Furthermore, if the Commission works with the industry to develop mutually acceptable standards, any need for regulations in the future may be reduced or even eliminated.

[240/] Indeed, NENA and VoIP industry participants already have forged an agreement on key elements of providing emergency 911 service to VoIP users. *See* Media Advisory, "Public Safety and Internet Leaders Connect on 911," (Dec. 1, 2003) *available at* http://www.intrado.com/assets/documents/VoIP%20VON-NENA%20Agreement.pdf; AT&T Presentation at 20, *FCC VoIP Forum* (Dec. 2003) ("The National Emergency Number Association (NENA) and VoIP leaders, including AT&T Consumer, reached an agreement on key principles for providing 911 services to VoIP users."); *see also* Written Statement of Michael K. Powell, Chairman, Federal Communications Commission, on Voice over Internet Protocol (VoIP) at 12 (Feb. 24, 2004) ("Powell VoIP Written Statement"). Other voluntary industry efforts include ATIS's new "IP Coordination Ad Hoc Committee," recently launched by ATIS's Emergency Services Interconnection Forum ("ESIF") to contribute to the planning, development, and architectural design of an overall IP-based enhanced 911 system. *See* Media Advisory, "ATIS Webinar: VoIP and E911 Critical Implementation Issues" (Feb. 11, 2004) *available at* http://www.aits.org/PRESS/ pressreleases2004/021104.htm.

Any such standard also must take into account differences among types of IP-enabled services. For example, enterprise VoIP deployments, like traditional PBX, are not inherently capable of providing PSAPs with station level information (*i.e.*, the caller's phone number and precise location within the main address from which the call is placed). SBC's PS/ALI 911 service, described above, helps resolve this issue. To address the portability of VoIP end users within an enterprise, SBC and other companies have contracted with Telcordia to develop 911 interface specification standards that accommodate VoIP technologies for enterprise customers. Telecordia's interface development efforts are designed to allow IP-enabled service providers to support the proper routing of emergency calls initiated by IP enterprise customers, as well as the delivery of the associated detailed location information to PSAPs. The Commission's regulations should accommodate, not thwart, these industry-based efforts to develop 911 solutions for enterprise VoIP.

Non-registered E-911: IP-enabled services are generally portable across all broadband access points within and beyond the United States; in other words, subscribers can access their VoIP service from any location where they can access a broadband connection. While this presents enormous upside potential for IP-enabled services, it also presents significant challenges to providing E-911 service. A provider has no way of knowing, in advance, the location at which its customer will be using the service: theoretically, a customer could access his or her VoIP service anywhere there is a broadband connection. In this scenario, the provider has no way of knowing the customer's geographic location unless the customer notifies his or her provider of that geographic location.[241/]

[241/] A possible short-term solution is to rely on the end user to update his geographic location each time he ports his service to a new broadband connection point.

The Commission should avoid premature regulation in this area, given the technological challenges that are yet to be addressed. As the Commission recognizes in the *NPRM*, the "development and deployment of these services [are] in [their] early stages, . . . [and] these services are fast-changing and likely to evolve in ways that we cannot anticipate."[242/] Indeed, until some technological solutions have been identified, regulation could predetermine the outcome, potentially limiting technological developments and innovation. There is sufficient market-based pressure in the industry to come up with a solution even without a government mandate to do so, as illustrated by the voluntary 911 efforts that some providers have already made to date, described above; similar strides are to be expected with respect to portable E-911.

IP-Enabled E-911 Enhancements: As noted above, IP-enabled services are not solely a source of 911 concerns; they also present 911 opportunities. The introduction of IP-enabled 911 services will expand the range of 911 services beyond voice to support multimedia options that aim to improve the utility, quality, and quantity of information passed between the caller and the PSAP operator. Already, some providers are developing next-generation capabilities that will exceed the E-911 capabilities available on the circuit-switched network.[243/] Bi-directional video communications, made possible by packet technology, could convey invaluable information from the emergency caller to the PSAP operator and vice versa. For instance, a caller could provide real-time video of the emergency situation, enabling both the PSAP operator and

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242/ *NPRM* ¶ 53.

243/ *See* VoIP Fact Report at 17 (citing H. Weaver, *McCain: Rules Must Change to Accommodate Services Like VoIP*, RCR Wireless News (Mar. 1, 2004) (quoting Vonage's chairman as stating that his company "plans to leapfrog enhanced 911 and go right to intelligent 911 that would use IP-based services to do everything from deliver a message to a homeowner's e-mail or mobile phone when 911 is dialed from the home, to gathering the potential victim's medical records and delivering them first to emergency responders and then to the hospital if necessary.")).

responsive emergency personnel to better assess and resolve the situation. Likewise, PSAP operators could augment their voice instructions with first aid video instructions appropriate for the specific medical emergency at hand. IP-enabled 911 also holds the promise of "pinpoint[ing] the specific location of the caller in a large building[,] . . . hail[ing] your doctor, and send[ing] a text or Instant Message alert to your spouse."[244/]

Another opportunity created by IP-based 911 technology is the removal of data constraints that currently limit PSAPs, most of which use low-speed modems to retrieve ALI data. PSAPs operating in an IP-enabled environment could draw on multiple databases for a variety of useful information, such as medical information for the individual in need or floor plans for the location of the emergency. Although it may be years before these dynamic emergency calling possibilities come to fruition, now is the time for the Commission to establish the kind of regulatory foundation that will enable the emergency calling system to make these future possibilities a reality. In particular, the Commission must act with caution and, where necessary, impose only minimum standards that are currently technologically feasible and necessary to ensure E-911 service for widespread IP-enabled services, without foreclosing future developments. By initially creating only baseline standards (where needed), the Commission will help IP-enabled 911 service realize its full potential and avoid stunting the technological innovations currently taking place.

D. The Commission Should Reaffirm Its Commitment to the Needs of People with Disabilities by Imposing Regulations that Ensure Their Access to IP-Enabled Services that Interconnect with the PSTN.

Access for people with disabilities to communications technology and services is an important public policy, one that Congress has explicitly required the Commission to safeguard.

244/ Powell VoIP Written Statement at 12.

Congress has recognized that such access is "essential for participation in nearly all aspects of society," "a critical tool for employment," and capable of "bring[ing] independence" to individuals with disabilities.[245/] Accordingly, it is essential that individuals with disabilities are assured access to IP-enabled services and equipment. This is especially true as such services become increasingly widespread and more central to the nation's communications. The Commission cannot effectively ensure access to communication for people with disabilities if these individuals are cut off from the next generation of communications technologies and networks that will increasingly be used to connect individuals worldwide. The Commission should assert jurisdiction over the disability access aspects of such services and equipment, and, as we show below, it has clear authority to do so. The Commission should also focus on the substance of these issues now, during the formative stages of this technological revolution when there are the most opportunities for progress, rather than after the fact. In the near term, the Commission should apply its rules implementing sections 255, 251, and 225, and Title I of the Act,[246/] as appropriate, to those IP-enabled services that interconnect with the PSTN. The Commission should also require providers of these services to contribute to the federal Telecommunications Relay Service fund.

1. IP-Enabled Services and Facilities Have Extraordinary Potential to Provide Truly Effective Access to Communications to People with Disabilities.

Just as the IP platform is revolutionizing other aspects of electronic communication, it holds the potential to do the same for access to communications by people with disabilities. Fundamentally, the IP platform makes it easier for a user to adapt the technology for his or her

245/ *Disability Access Order* at 6420-21 ¶¶ 4-6.

246/ 47 C.F.R. §§ 6.1-7.23 (addressing obligations of service providers).

individual needs. Unlike traditional circuit-switched networks that use centrally located and inflexible software and technology, the IP-platform's open standards and more distributed and flexible digital software and technology have the potential to facilitate modification and customization to meet individual end users' needs. This customization will enable end users to tailor their individual services to use a mix of voice, text, and video to best meet their needs or the needs of the called party. With this flexibility, IP-enabled services promise to exceed the disability access capabilities of existing communications technologies, which often rely on one-size-fits all, static solutions.

IP-enabled services have already begun to transform one of the foundations of communications access — Telecommunications Relay Services ("TRS"). IP-enabled services have spawned alternative TRS options with greater functionality than those that depend on traditional TTY.[247/] IP Relay Service, for instance, enables the user to read far more text at once than using a TTY, offers more functionality (allowing the user to print and save transcribed conversations), and is far more portable.[248/] Video Relay Service ("VRS"), another IP-based TRS recognized by the Commission, uses a broadband Internet connection to provide subscribers with hearing impairments with "live" sign language interpretation for conversations.

The ability to convert information, commands, and messages to voice should become increasingly available using IP technology and equipment, and it may offer substantial benefits

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247/ TTY is a type of device that uses tones to transmit typed conversations over phone wires at the rate of 45 baud per second. A specially trained operator known as a Communications Assistant ("CA") acts as an intermediary between the TTY caller and others on the PSTN, facilitating communication by relaying typed messages by voice and converting voice to typed messages.

248/ Suzanne Robitaille, *New Telecom Connections for the Deaf*, Business Week Online (Oct. 9, 2002).

to individuals with vision-, speech- and mobility-impairments.[249/] Indeed, IP-enabled services already are using such capabilities to usher in public safety advances for individuals with disabilities. One industry participant already has created an emergency-broadcast system that simultaneously sends both audio streams and text messages to multiple IP phones, notifying employees with hearing or vision limitations of emergency alerts in accessible formats.[250/]

2. The Commission Has Authority to Ensure Access to IP-Enabled Services and Facilities for People with Disabilities.

The Commission should play a central role in ensuring that the IP-enabled services market delivers on the substantial promise it already has shown in promoting disability access. To do so, the Commission should affirm its authority to ensure access for people with disabilities to IP-enabled services. The Commission has such authority under the non-carrier-specific provisions of sections 255 and 225 in Title II, and its ancillary jurisdiction under Title I. The Commission's direct authority in this area is grounded in sections 255, 251, and 225 of the Act, which require manufacturers of telecommunications equipment and CPE and providers of telecommunications services to make their products and services accessible to people with disabilities,[251/] prohibit telecommunications carriers from installing network features, functions, or capabilities that preclude disability access,[252/] and obligate the Commission to ensure that interstate and intrastate TRS is available to hearing- and speech-impaired individuals.[253/]

249/ Business Week Online, *How VoIP Can Connect the Disabled* (Apr. 28, 2004).

250/ *Id.*

251/ 47 U.S.C. § 255.

252/ *Id.* § 251(a)(2).

253/ *Id.* § 225.

As a preliminary matter, these statutory provisions give the Commission express authority to ensure that the *equipment* used for IP-enabled services is accessible to individuals with disabilities. Section 255 applies on its face to manufacturers of telecommunications equipment and CPE.[254/] The Commission has defined CPE for this purpose to include equipment used for telecommunications, not just telecommunications services.[255/] The Commission's current rules, implemented under its express authority under section 255, require manufacturers of the facilities and CPE used for the transmission capability of IP-enabled services (an IP-enabled telephone handset, for example) to "ensure that the equipment is designed, developed, and fabricated to be accessible to and usable by individuals with disabilities."[256/]

The Commission may also exercise ancillary jurisdiction under Title I to require information service providers, including IP-enabled service providers, to ensure the accessibility of their services to individuals with disabilities. While the text of sections 255 and 251 apply specifically to "providers of telecommunications services" and "telecommunications carriers," respectively, the Commission is obligated under section 151 of the Act to ensure nationwide, generally available communications "to all the people of the United States." This obligation empowers the Commission to ensure that IP-enabled communications are available to subscribers with special needs. As noted above, "Congress sought 'to endow the Commission with sufficiently elastic powers such that it could readily accommodate dynamic new developments in the field of communications.'"[257/] The Commission could not "discharge its

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254/ *Id.* § 255(b).

255/ *Disability Access Order* at 6451-53 ¶¶ 81-88.

256/ 47 U.S.C. § 255(b); 47 C.F.R. §§ 6.1-7.23.

257/ *Computer & Communications Indus. Ass'n*, 693 F.2d at 213.

overall responsibilities"[258/] to ensure disability access to communications if individuals with disabilities could be cut off from the next generation of communications technologies and networks that will increasingly be used to connect individuals nationwide.

Just as important, the Commission's broad responsibilities in this area necessarily include the ancillary authority to ensure that individuals with disabilities who remain on the PSTN can communicate with subscribers of IP-enabled services. The value of accessibility to legacy telecommunications would be significantly eroded if an individual with access today could no longer use his or her legacy service to communicate with the growing subscriber base served by IP-enabled services. Indeed, the Commission already has determined that it has ancillary authority to extend section 255's disability access requirements to information services — and, in fact, did so with respect to voicemail and interactive menu services[259/] — where doing so is "essential to the ability of persons to effectively use telecommunications."[260/]

3. The Commission Should Impose its Current Disability Access Rules on IP-Enabled Services That Interconnect with the PSTN.

The Commission should exercise its ancillary jurisdiction and extend its current rules implementing section 255 to those IP-enabled services that interconnect with the PSTN.[261/] The Commission's ancillary jurisdiction is at its apex with respect to such services because they are part of the interconnected communications network over which the Commission has clear authority under Title I of the Act. Further, because these services may replace legacy voice services, Congress's concern over the accessibility of telecommunications services would

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258/ *Southwestern Cable*, 392 U.S. at 177

259/ *Disability Access Order* at 6455 ¶ 93.

260/ *Id.*; *see Midwest Video II*, 440 U.S. at 706-07 (ancillary jurisdiction appropriate to "prevent interference with the Commission's work").

261/ 47 C.F.R. §§ 6.1-7.23.

reasonably apply to these services. As noted above, the courts have recognized that Congress intended for the Commission to be able to carry out the goals and principles of the Act even in the face of new technologies and services.[262/]

In extending its section 255 rules to the provision of voicemail and interactive services, the Commission determined that "failure to ensure accessibility of voicemail and interactive menu services, and the related equipment that performs these functions, would seriously undermine the accessibility and usability of telecommunications services required by section 255 . . . ."[263/] It determined that extending section 255 obligations to voicemail and interactive menus would "avoid the disruptive effects caused by inaccessible voicemail and interactive menus so as to ensure that the implementation of section 255 is not thwarted."[264/]

The same analysis applies to IP-enabled services that interact with the PSTN. Because calls move seamlessly between the PSTN and IP networks, both networks must afford adequate accessibility in order for the explicit accessibility obligations upon telecommunications services to be effective. Limiting any accessibility requirements to IP-enabled services that interconnect with the PSTN is a reasonable approach at this time. Such services are designed to allow IP service users to interact transparently with legacy PSTN end users. People with disabilities who remain on the PSTN should not suffer a degradation in their ability to communicate generally with other end users simply because other users have migrated to new technology and subscribe to services that lack the required functionality. But as the market develops, the Commission should revisit this issue to determine if it can and should take further actions to meet Congress's

262/ *See, e.g.*, *Southwestern Cable*, 392 U.S. at 177.

263/ *Disability Access Order* at 6459-60 ¶ 103.

264/ *Id.*

accessibility goals. In making this analysis, the Commission should focus on Congress's stated goal of communications services for all. While technology used to deliver communications may change, the needs of consumers with disabilities for access to such communications do not. The Commission also should consider the risks of excluding any services from rules regarding access. Such exclusions run the risk of undermining current levels of access, to the extent traffic migrates to services that have no PSTN connection. In fact, the perceived burden of accessibility requirements on some services and not others could even encourage that migration. Such an outcome would threaten the ability of callers to reach people with disabilities and vice versa.

4. The Commission Should Extend TRS Contribution Requirements to IP-Enabled Service Providers that Interconnect with the PSTN, and Should Affirm Its Prior Decision to Classify Certain IP-Enabled Services as Reimbursable TRS.

As IP-enabled services that interconnect with the PSTN will continue to proliferate and increasingly will be used by TRS users, the Commission should extend TRS contribution requirements to providers of these services. While section 225 provides only that TRS costs must be recovered from "subscribers for every interstate service,"[265/] without specifying "telecommunications service," the Commission currently requires TRS contributions only from carriers providing interstate telecommunications services.[266/] The Commission at minimum, however, has ancillary authority to impose contribution requirements on IP-enabled service providers that interconnect with the PSTN. Requiring providers of these services to contribute will ensure continued support for TRS as traffic migrates from traditional telephony to IP-enabled services.

265/ 47 U.S.C. § 225(d)(3)(B).

266/ *See* 47 C.F.R. § 64.604(c)(5)(iii)(A).

The Commission should also continue its current course of monitoring developments in the delivery of TRS and provide funding for IP-based TRS that improve relay services. The Commission has already found that IP Relay and VRS, two IP-based services, qualify as TRS and therefore are eligible for reimbursement from the Interstate TRS Fund.[267/] That decision will serve to encourage additional innovation that will benefit individuals with disabilities, and such continued innovation is essential to ensuring that the full potential of IP innovations for improved access is realized.

E. The Commission Should Affirm that It Has Authority to Require Universal Service Contributions from IP-Enabled Service Providers and, When and If Appropriate, to Provide Universal Service Support to Such Providers.

As the Commission recognizes,[268/] the emergence of IP-enabled services as an alternative and complement to conventional circuit-switched telephony presents the Commission with both opportunities and challenges with respect to the existing universal service regime. First, on the contribution side, as traffic migrates from telecommunications services to IP-enabled services, the present telecommunications service revenue base for state and federal universal service contributions could diminish, increasing the burden on existing contributors. As discussed below, the Commission should affirm that it has the legal authority to widen the contribution base to require contributions from any provider of IP-enabled services, and it should exercise that authority at the present time to extend that obligation at least to providers of IP-enabled services that connect to the PSTN. Second, on the disbursement side, the Commission should affirm its authority to provide universal service support for certain IP-enabled information

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267/ Declaratory Ruling and Second Further Notice of Proposed Rulemaking, *Provision of Improved Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, 17 FCC Rcd 7779, 7792 ¶ 41 (2002).

268/ *NPRM* ¶¶ 63-67.

services at some point in the future if warranted, although the exercise of that authority is not appropriate today. The Commission's authority over universal service under sections 254 and Title I of the Act give it ample authority to accomplish both objectives.

1. The Commission Has the Authority to Assess Universal Service Contributions on All IP-Enabled Service Providers.

Section 254(d) of the 1996 Act grants the Commission both mandatory and permissive authority to assess universal service contributions on a broad range of communications service providers whose services contain some form of telecommunications component.[269/] In addition, under Title I of the Act, the Commission has sufficient ancillary authority to assess universal service contributions on those communications services that lack a telecommunications component. Together, these provisions endow the Commission with more than enough authority to require providers of IP-enabled services to contribute to universal service if it deems such contributions necessary and appropriate.

While the Commission's mandatory authority under section 254(d) extends to "every telecommunications carrier that provides interstate telecommunications services,"[270/] the Commission's permissive authority authorizes it to assess contributions from "any other provider of interstate *telecommunications* . . . if the public interest so requires."[271/] This permissive authority extends to any IP-enabled service provider that offers IP-enabled service to its

269/ As discussed below, that telecommunications component need not be solely in the "last mile" connection to the end user.

270/ 47 U.S.C. § 254(d).

271/ *Id.* (emphasis added). The Act defines telecommunications as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received. 47 U.S.C. § 153(43). As the Commission recently held in its *Pulver Declaratory Ruling*, "[u]nder the statute, the heart of 'telecommunications' is transmission." *Pulver Declaratory Ruling* at 3312 ¶ 9.

subscribers with some form of telecommunications, *i.e.*, transmission. As the Commission already has tentatively concluded, an information service provider that "owns or leases the underlying transmission facilities on which its packets are transmitted — *e.g.*, switches or routers — is providing telecommunications"[272/] and thus falls within the scope of the Commission's discretionary contribution authority under section 254(d). Indeed, the Commission reached essentially the same result in its *Report to Congress*, concluding that where an information services provider owns or leases transmission facilities in order to provide an information service, it would be "providing telecommunications as a non-common carrier" and "may be required to contribute to the preservation and advancement of universal service if the public interest so requires."[273/]

The Commission also has the authority to require universal service contributions from IP-enabled service providers whose services do not contain a discrete telecommunications component — albeit pursuant to its ancillary Title I authority, not its direct section 254 authority. Indeed, the Commission had authority to design and administer a universal service program long before Congress adopted section 254 in the 1996 Act. Title I, as the Commission and the courts have long recognized, authorizes the Commission to "regulat[e] interstate . . . commerce in communication by wire and radio so as to make available, so far as possible, to all people of the United States a rapid, efficient, Nation-wide and world-wide wire and radio communication

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272/ Notice of Proposed Rulemaking, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 17 FCC Rcd 3019, 3033 ¶ 25, 3053 ¶ 76 (2002) ("*Broadband NPRM*") (tentatively concluding that "in the case where an entity combines transmission over its own facilities with its offering of wireline Internet access service, the classification of that input is telecommunications").

273/ *See Report to Congress* at 11534-35 ¶ 69, 11569-70 ¶ 139; *see also id.* at 11557 ¶ 117 (finding that "other providers of interstate telecommunications" who own or lease facilities to provide telecommunications could be assessed universal service contributions under the Commission's permissive authority) (citation omitted).

service with adequate facilities at reasonable charges,"[274] and thereby establishes a mandate for the Commission to create a universal service program. The D.C. Circuit expressly "recognize[d] the prominence of [section 151's] universal service objective" among the several statutory objectives of Title I.[275] The Commission relied on this authority for over a decade before passage of the 1996 Act to establish universal service funding for basic telephone service in high cost areas, supported by contributions from all long-distance service providers.[276]

In creating section 254, Congress acted to formalize and expand the Commission's Title I universal service authority, not limit it. The statute obligates the Commission to both preserve and advance universal service; it thus acknowledges that such support was already in place prior to enactment of section 254, while providing the Commission with a mandate to take action to further the goals of universal service.[277]

Significantly, the Title I sources for this authority, sections 151 and 154(i), are not limited to "telecommunications service providers" or even other providers of

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274/ 47 U.S.C. § 151.

275/ *Nat'l Ass'n of Regulatory Util. Comm'rs v. FCC*, 737 F.2d 1095, 1108 (D.C. Cir. 1984); *Rural Tel. Coalition v. FCC*, 838 F.2d 1307, 1315 (D.C. Cir. 1988) (declaring that "universal service is an important FCC objective" and upholding establishment of Universal Service Fund under section 151); *see also GTE Serv. Corp.*, 474 F.2d at 730-31 (finding that the FCC has authority under 47 U.S.C. §§ 151 and 154(i) to regulate the data processing activities of carriers if those activities pose a "threat to efficient public communications services at reasonable prices").

276/ *See generally* Decision and Order, *Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board*, 96 F.C.C.2d 781, 791-802 ¶¶ 21-48 (1984), *aff'd*, *Rural Tel. Coalition*, 838 F.2d at 1315.

277/ 47 U.S.C. § 254(b)(5). As noted, nothing in section 254 suggests that it is designed to limit the Commission's pre-existing Title I authority; therefore, that narrow reading should be disfavored. As the courts have held, "repeals by implication are not favored." *Morton v. Mancari*, 417 U.S. 535, 550 (1974) (quoting *Posadas v. National City Bank*, 296 U.S. 497 (1936)). The Supreme Court also has made clear that overlapping statutes must be read "to give effect to each if [the court] can do so while preserving their sense and purpose." *Watt v. Alaska*, 451 U.S. 259, 267 (1981).

"telecommunications." Instead, the Commission retains broad jurisdiction over any information service provider involved in "interstate and foreign commerce in communication by wire and radio."[278/] If the Commission determines that the migration of traffic from the PSTN to new information services is materially affecting the ability to sustain universal service as a whole as well as affecting the costs imposed on existing universal service contributors, it would be well within its ancillary authority to impose contribution obligations on the providers of such information services, in order to prevent "interference" with its ability to accomplish its universal service goals.[279/]

2. The Commission Should Exercise Its Authority to Require Universal Service Contributions from IP-Enabled Service Providers As Needed to Preserve the Federal Contribution Base.

Having concluded that the Commission has both permissive contribution authority under section 254(d) and ancillary contribution authority under sections 151 and 154(i) to require IP-enabled service providers to contribute to the universal service fund, the next question is whether the public interest requires the exercise of this authority to preserve the federal universal service contribution base. The short answer is that such a decision would clearly serve the public interest, at least with respect to any IP-enabled service that includes the capability to send traffic to or receive traffic from the PSTN.

The Commission announced four principles for exercising its permissive authority in its *Report to Congress*: (1) to establish "a broad contribution base so that the burden on each contributor will be lessened;" (2) to require contributions from carriers that "utilize the PSTN, which is supported by universal service mechanisms;" (3) to minimize, to the extent possible, the

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278/ 47 U.S.C. § 151.

279/ *See Midwest Video II*, 440 U.S. at 706-07.

"competitive disadvantage" suffered by carriers with universal service obligations relative to carriers without such obligations; and (4) to reduce carriers' incentives to structure their service offerings to circumvent contribution obligations.[280/] All four of these considerations weigh in favor of assessing contributions on IP-enabled service providers — whether their services include a discrete telecommunications component or not — that connect with the PSTN. First, this policy will ensure the long-term financial health of the universal service fund, even as IP-enabled services become more established. Second, it will ensure that all providers who benefit from the PSTN's ubiquity will also bear responsibility for supporting that ubiquity. Third, it will prevent IP-enabled service providers from unfairly undercutting the prices of existing telecommunications service providers solely because the latter are subject to the Commission's mandatory authority and must thus incur a costly contribution burden. Fourth, it will remove any incentive for IP-enabled service providers to attempt to structure their services to avoid universal service contribution obligations.

As noted above with respect to access charges, the Commission already has recognized that those who use and benefit from the PSTN should contribute to its support.[281/] The Commission previously relied on this same rationale in extending USF contribution requirements to private carriers, finding that, "[w]ithout the benefit of access to the PSTN, which is supported by universal service mechanisms, these providers would be unable to sell their services to others for a fee . . . . [T]hese providers, like telecommunications or common carriers, have built their businesses or a part of their businesses on access to the PSTN."[282/] IP-enabled service providers

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280/ *Report to Congress* at 11565-66 ¶¶ 132-35.

281/ *AT&T Access Charge Order* ¶ 15.

282/ *See* Report and Order, *Federal-State Joint Board on Universal Service*, 12 FCC Rcd 8776, 9184 ¶ 796 (1997).

that connect with the PSTN to send or receive calls likewise benefit from that legacy network (and impose costs on it); as a result, they should bear some of the burden of supporting that network.

Thus, the Commission has authority to assess contributions from VoIP providers, such as Vonage, that market their products as effective substitutes for (and improvements over) conventional circuit-switched telephony only because they can offer their subscribers full access to the PSTN.[283] It would be competitively perverse to give such providers an artificial regulatory advantage by exempting them from the direct universal service obligations to which their circuit-switched rivals are subject.

Similar competitive concerns may require the Commission to include certain other IP-enabled service providers within the scope of the universal service contribution requirement, even in the absence of connection to the PSTN. Specifically, the Commission should use this opportunity to clarify that any universal service contribution requirement should apply equally to providers of wireline broadband Internet access and providers of cable modem service. Although these services both are IP-enabled services, the Commission found the former to be a telecommunications service, and it is thus covered by the Commission's mandatory authority; because it found the latter to be an information service with a telecommunications component, it is covered by the Commission's permissive authority (subject to the final outcome of *Brand X*). But the Commission has the *authority* to require contributions of both. And as SBC has argued

[283] Vonage's interconnection with the PSTN contrasts with Pulver's FWD service, which lacks a similar connection with the PSTN. Pulver's service does not allow subscribers to talk to POTS users, and is offered entirely over the Internet. *See Pulver Declaratory Ruling* at 3309 ¶ 5.

elsewhere,[284/] principles of competitive neutrality require that, unless and until the Commission revisits its determination that wireline broadband is a telecommunications service subject to the mandatory contribution obligation, the Commission must exercise its *permissive* authority to impose contribution requirements on cable modem service. This service competes directly with wireline broadband Internet access, which currently is subject to a sizeable mandatory contribution obligation. This disparity severely slants the competitive playing field for broadband services in favor of cable modem service and creates disincentives to investment for wireline broadband Internet access providers despite Congress's mandate that the FCC provide for a pro-competitive, deregulatory framework to encourage deployment of advanced telecommunications and information technologies.[285/]

As the Commission observes, its decision to impose contribution requirements on IP-enabled service providers will have implications for the application of any contribution methodology it chooses in the universal service contribution proceeding.[286/] But, as the

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284/ *See* Comments of SBC Communications Inc., *Broadband NPRM*, at 43-44 (filed May 3, 2002).

285/ As SBC explained in its comments in the Commission's recent section 706 proceeding, for example, SBC expects its advanced services affiliate, Advanced Services Inc. ("ASI"), to contribute more than $100 million in universal service contributions on DSL service in 2004. These costs, which are not borne by dominant cable modem service providers, often must be passed on to end user customers, creating a substantial and unfair competitive disadvantage for DSL providers. *See* Comments of SBC Communications Inc., Notice of Inquiry, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, GN Docket No. 04-54, at 13-15 (filed May 10, 2004).

286/ *See, e.g., NPRM* ¶ 64 (noting that, under "a telephone number-based methodology, VoIP providers that utilize telephone numbers would be subject to assessment" while under a "connections-based methodology, providers of broadband connections used to provide VoIP could be subject to assessment").

Commission appears to recognize,[287/] that methodological choice is logically separate from the question of which carriers should bear a contribution obligation, and the Commission must make that latter determination first. This determination should inform the methodology debate rather than await its resolution. If, for example, the Commission decides that IP-enabled service providers that offer service without a telecommunications component should help to support universal service, the contribution methodology should then be tailored to ensure that such providers are in fact assessed.

Finally, the Commission should also consider the impact of its contribution decisions on state universal service programs. As traffic migrates from intrastate services to inherently interstate IP-enabled services, state revenues are likely to decline and federal revenues to increase. To the extent contributions remain revenue-based, this migration, in turn, may put pressure on state authorities to increase per-carrier contribution requirements to make up any shortfall. To head off such potentially destabilizing developments, the Commission should work with states to develop a coordinated response for state and federal contribution mechanisms to address the migration of communications services from the PSTN to IP networks.

3. The Commission Should Acknowledge that, While Universal Service Support for IP-Enabled Services Is Not Appropriate Today, the Commission Has Statutory Authority to Support Such Services in the Future, If and When Appropriate.

As IP-enabled services become sufficiently widespread and begin to replace PSTN-based services, the Commission may someday in the future conclude that public policy favors extending universal service support to such services.[288/] While that time has not yet arrived and

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287/ *Id.*

288 It is already settled, however, that the Commission has authority to support information services through the existing section 254 rural health and schools and libraries mechanisms. *See*

may not arrive for many years, if at all, the Commission should use this proceeding as an opportunity to affirm the statutory basis for its authority to extend such support if appropriate.

As the Commission observes, section 254(c) of the Act defines universal service as "an evolving level of telecommunications services,"[289/] and, as discussed above, IP-enabled services are interstate information services, not telecommunications services. No matter what the contours of that specific Title II mandate, however, the Commission retains its more general Title I authority, described above, "to make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, . . . wire and radio communication service with adequate facilities at reasonable charges . . . ."[290/] Nothing in the text or legislative history of section 254 suggests that Congress intended to limit that authority in any way. Indeed, Congress clearly contemplated, in enacting section 254, that the definition of universal service would evolve to reflect technological innovation, including the growth of information services.[291/] Thus, even if section 254 does not explicitly *authorize* support for information services, it would be a vast overreading of that provision to read it as *prohibiting* the Commission from providing such support to advance the general mandate of section 151, which, as discussed above, supplied

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47 U.S.C. § 254(h)(2)(A); *Texas Office of Pub. Util. Counsel v. FCC*, 183 F.3d 393, 443-44 (5th Cir. 1999) (upholding the Commission's authority to extend universal service support under schools, libraries and rural health care programs to information services provided by non-telecommunications carriers).

[289/] *NPRM* ¶ 65 (citing 47 U.S.C. § 254(c)(1)); *see also* Recommended Decision, *Federal-State Joint Board on Universal Service*, 17 FCC Rcd 14095, 14102-03 ¶ 19 (2002).

[290/] 47 U.S.C. § 151.

[291/] *See id.* § 254(c) (defining universal service to "take[] into account advances in telecommunications and information technologies and services"); *id.* § 254(b)(2) (universal service must be based on the principle that "[a]ccess to advanced telecommunications and information services should be provided in all regions of the nation"); S. Rep. No. 103-367, at 33 (1994) (stating an intent "[t]o ensure that the definition of universal service expands over time . . . [and] include[s], at a minimum, the telecommunications and information services that are subscribed to by a substantial majority, not simply a majority, of residential customers").

the Commission with sufficient authority to maintain a universal service program for more than a decade before Congress enacted section 254 in the 1996 Act.[292] Accordingly, although there is no indication that support for IP-enabled services would be appropriate at the present time or in the near future, the Commission's longstanding Title I authority to make affordable communications available nationwide fully empowers it to assert authority to support new technologies at a later date should that become necessary.

F. Industry-Specific Consumer Protection Regulation Is Not Only Undesirable Because It Could Stunt Emerging IP-Enabled Services, But Also Generally Unnecessary Due to Robust Competition for These Services.

In addressing the issue of consumer protection, the Commission must balance the need to ensure that consumer interests are adequately and effectively protected against the goal of avoiding overregulation that could stunt these emerging services. This balance is appropriately struck for these services by relying on generally applicable consumer protections laws, which will apply if the Commission finds these services to be information services. In addition, because of the strong competition in this market, providers have every incentive to be responsive to consumer demands. Thus, while the Commission could employ its Title I ancillary jurisdiction to extend certain communications-specific consumer protection regulations to IP-enabled services,[293] it need not and should not do so because consumers are protected by

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[292] As an additional "belt and suspenders" measure to ensure that it has sufficient authority to support IP-enabled services, the Commission could also exercise its authority under section 10(a) to forbear from the provisions in sections 254(c)(1) and 254(e) that limit universal service support to telecommunications services.

[293] *See, e.g.*, Order on Reconsideration, *Promotion of Competitive Networks in Local Telecommunications Markets*, 32 Communications Reg. (P&F) 118 ¶¶ 7-8 (2004); Order, *2000 Biennial Review — Review of Policies and Rules Concerning Unauthorized Changes of Consumers' Long Distance Carriers*, CC Docket No. 00-257 ¶ 9 (rel. May 4, 2004).

generally applicable consumer protection laws, which are effective in all other non-common carrier markets.

Generally applicable consumer protection laws apply to providers of IP-enabled services and protect consumers of such services from unfair or deceptive practices.[294/] Such laws are designed to prevent deceptive and unfair business, advertising, and billing practices by any business, and to ensure that businesses comply with their privacy commitments and with credit reporting guidelines. Thus, even if the market does not independently constrain such conduct, the existing, generally applicable consumer protection regime provides sufficient security and recourse.

The market for IP-enabled services is characterized by low barriers to entry, and service is already provided today by a variety of entities, including equipment manufacturers, software companies, and other "noncarriers" that specialize in the provision of IP communications. As a result, no provider exercises market power that allows it to impose unfair conditions on consumers against their will. To the contrary, consumers can easily "vote with their feet" if a provider fails to meet their expectations, and choose a provider that offers better and more responsive service.[295/] A provider that engages in unfair or deceptive practices (such as "cramming") is likely to swiftly lose customers to its competitors or be charged with fraudulent

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294/ *See, e.g.*, California Business and Professions Code § 17500 *et. seq.* (establishing civil liability for "untrue or misleading" advertising or marketing activities); s*ee also Ting v. AT&T*, 319 F.3d 1126 (9th Cir. 2003) (holding that these consumer protections are not preempted by federal law).

295/ Of course, consumers' ability to switch providers depends in part on their ability to port their numbers, as discussed above. This further underscores the need to extend that requirement to providers of IP-enabled services.

business practices.[296] As FCC Commissioner Abernathy has explained in the context of Internet services, "the robustly competitive market for ISP services gives providers ample incentive to engage in consumer-friendly practices and punishes providers that fail to do so. . . . [M]ajor ISPs have developed detailed policies for protecting customer privacy, irrespective of government mandates."[297]

For these reasons, the Commission generally should not impose consumer protection rules designed for legacy services, which were not under the jurisdiction of the generally applicable consumer protections laws, on IP-enabled services. For example, special rules to protect customer proprietary network information ("CPNI"), which apply to telecommunications carriers under section 222 of the Act,[298] should not be applied to IP-enabled service providers. Such rules have never been deemed necessary for Internet services or application providers, and it is not clear that there is reason for heightened concern with respect to IP-enabled service providers like VoIP providers. While the Commission has *retained* CPNI rules for telecommunications services it deemed competitive, such as wireless and long distance, here the Commission would be reaching out to *impose* these protections on an industry that already has functioned well without them. And the Commission has recognized, even when deciding to retain CPNI protections, that forbearing from CPNI restrictions can result in benefits to consumers and carriers, such as "promot[ing] a free flow of information from the carrier to the

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296/ *See, e.g.*, *Bill Buck Chevrolet, Inc. v. GTE Florida, Inc.*, 54 F. Supp. 2d 1127 (M.D. Fla. 1999) (customers claimed fraud and RICO violations for alleged fraudulent billing practices and "cramming").

297/ Separate Statement of Commissioner Kathleen Q. Abernathy, *Broadband NPRM* at 3070.

298/ *See NPRM* ¶ 71.

consumer [and] potentially decreasing the carriers' costs of marketing."[299] These considerations are especially important in the market for IP-enabled services where Congress and the Commission have emphasized the need for an unregulatory approach to encourage broader deployment of these developing technologies.

In addition, here the Commission can determine that market forces already have successfully promoted responsible protection of consumer privacy. In response to consumer demand, Internet services and application providers, including SBC, have voluntarily joined industry-wide groups such as the TRUSTe Privacy Partnership to develop standards for protection of consumer privacy and methods to ensure compliance with them. SBC and other like-minded providers, in order to attract customers by promising reliable privacy protections, have their privacy practices reviewed for compliance by TRUSTe. And the Federal Trade Commission ensures that companies stand by their privacy policies and promises.

The "Truth-in-Billing" ("TIB") rules the Commission has adopted pursuant to sections 201 and 258 of the Act likewise are unnecessary. The FCC adopted its TIB rules because common carrier billing practices were specifically excluded from the generally applicable consumer protection statutes.[300] This would not be a concern if IP-enabled services are correctly classified as information services; since those services would not be telecommunications services, they would be covered by the generally applicable rules. Similarly, the section 258

299/ Order on Reconsideration and Petitions for Forbearance, *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, 14 FCC Rcd 14409, 14441-42 ¶ 63 (1999).

300/ *See* First Report and Order and Further Notice of Proposed Rulemaking, *Truth-in-Billing and Billing Format*, 14 FCC Rcd 7492, 7508 ¶ 27 (1999) (citing 15 U.S.C. § 45(a)(2)).

slamming protections need not be imposed on IP-enabled services.[301/] To the extent it exists in a VoIP environment, slamming likely could be addressed as a fraudulent business practice under general consumer protection statutes.[302/]

There is one limited exception to this general policy of not imposing communications-specific consumer protection regulations on IP-enabled services. While the Commission should not (and could not) impose section 214 entry and exit rules on IP-enabled service providers because such providers are not "carriers,"[303/] it might be appropriate for the Commission to require IP-enabled service providers to give some limited form of advance notice of discontinuance of service to their customers.

The market functions least well, if at all, in protecting individual consumers where a business is exiting, because it has no incentives to respond to customer demands. Some regulatory oversight of market exit activity may therefore be appropriate, especially if consumers come to depend on IP-enabled services for their basic communications needs. Such oversight could also be critical to the extent IP-enabled services are used for national defense or public safety purposes. The Commission's mandate to ensure "adequate facilities" for communications, especially "for the purpose of the national defense" and for "promoting safety of life and property," provides a clear basis for exercising Title I ancillary authority to impose some form of limited notice requirement before an IP-enabled service provider is permitted to discontinue

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301/ *See NPRM* ¶ 72.

302/ *See, e.g.*, *Valdes v. Qwest Communications Intern., Inc.*, 147 F. Supp. 2d 116, 122 (D. Conn. 2001) (holding that a class of telephone customers whose service had been switched without their consent could bring a claim under the Connecticut Unfair Trade Practices Act and the common law of fraud).

303/ *See NPRM* ¶ 72.

service.[304/] These same concerns about accountability and security also may counsel in favor of a limited registration requirement for providers of IP-enabled services, whereby providers would supply basic corporate contact information to the FCC (*e.g.*, name, address, phone, e-mail, and contact person). Such a registration requirement, however, should not be a prerequisite to the initiation of service and must not serve in any way as a barrier to market entry.

SBC remains committed to working with consumer groups and other stakeholders to ensure proper protections for consumer interests including consumer privacy and the prevention of unfair business practices. Given SBC's commitment to these principles, and the competitive environment in which all providers operate in this emerging industry, the Commission should avoid rushing to judgment and increasing the burden of doing business in this emerging industry when no real threat to consumer interests has yet been identified and existing regulation provides adequate safeguards for consumer interests.

[304/] *See* 47 U.S.C. § 151.

CONCLUSION

By taking the various steps discussed above, the Commission will achieve its stated goal of ensuring the continued unregulation of IP-enabled services, and in the process eliminate regulatory uncertainty and promote the growth and evolution of IP-enabled services generally.

Respectfully submitted,

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May 28, 2004